



ANALYSIS OF COVARIANCE COMPUTER PROGRAM WITH MULTIPLE  
COVARIATES AND FORECAST CAPABILITY

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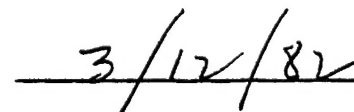
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## SUMMARY

This report documents the modifications to a U.C.L.A. Biomedical Mathematics Department (BMD) Analysis-of-Covariance Statistical Computer Program. The computer code was revised by the NAVAIRDEVCON to increase the computational accuracy and formulate output solutions in a form more suitable to the solution of engineering type problems.

The Covariance Statistical Model was used to successfully formulate empirical correlation equations which relate vehicle aftend drag with the complicated external flow field, the propulsion system, and the aircraft design parameters.

The program and supporting subroutines are written in FORTRAN for use on a CDC 6600 Computer. The appendices of this report include a sample problem input/output listing, computer program listing, a program user's guide, and the Analysis-of-Covariance statistical model.

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INTRODUCTION

Modifications to a U.C.L.A. Biomedical Mathematics Department Analysis-of-Covariance (BMD04V) Statistical Computer Program (reference (a)) were developed by NAVAIRDEVGEN to successfully formulate empirical correlation equations which relate aircraft aftend drag with external flow field parameters and aircraft design parameters. The modifications to the computer code were developed during a NAVAIR sponsored Aft Fuselage Twin Nozzle Fighter-Type Aircraft Drag Project. The project involved the correlation of a large data base of aircraft fuselage drag measurements obtained from various wind tunnel fighter models which contained geometric and flight performance variations.

This report will describe the unique capabilities of the Covariance Analyses and the extensive improvements to the original computer code which make it a valuable tool for use in analyzing a variety of engineering problems.

METHODOLOGY

In general, the Analysis-of-Covariance statistical model can be applied to any engineering problem for which a data base of dependent and independent variables exists and for which a requirement exists to relate the variables through a set of empirical correlation equations. The Analysis-of-Covariance method is not a traditional multiple regression method although it can be degraded to provide all the output normally associated with a total regression. The Analysis-of-Covariance method permits the separation of covariate (independent variables) to allow correlation of the variate (dependent variable) with a single covariate. For example, the method can be used to independently synthesize the functional relationships between each and every independent variable and the related multidependent functional variable. A multiple regression method cannot filter out the multiple effects on a dependent variable which are contributed by several related independent variables. A multiple regression method can be used when only one independent variable exists or when the interdependence of the independent variables is known a priori.

A complete and detailed mathematical formulation of the Analysis-of-Covariance model can be found in any standard statistical text (i.e., references (b) and (c)). For the sake of completeness, a description of the computational procedure is provided in Appendix D.

## DISCUSSION

### PROGRAM DESCRIPTION

The computer program described in this report can be utilized to compute Analysis-of-Covariance information for one Analysis-of-Variance variable with multiple covariates and unequal treatment group sizes with forecast capability. The statistical method permits the user to designate treatment groups or subdivisions of case input data which demonstrate certain user defined levels consistent with the reduction of scatter of the variate or dependent variable. In addition, covariate parameters may be defined which are common to each treatment group and which reduce the scatter of the variate in each group. The proper covariate parameters for a given problem are those which filter out the common effects and increase the predominant dependence within the treatment groups. The provision for the subdivision of case data into treatment groups provides the Covariance Analysis with the unique capability to synthesize the functional relationship of each independent variable on the dependent variable. The program provides the capability of partitioning the case data into treatment groups through user defined boolean expressions, thus simplifying the subdivision of large input data problems.

The program also provides the capability of transformation of the covariate parameters into complex multivariable functions which may be instrumental in the reduction of the variance of the dependent variable. The term transgeneration is used to include transformations of input variables and creation of new variables prior to the computations performed by the program. By use of the transgeneration option, new variables may be created by performing algebraic, trigonometric, exponential, and logarithmic transformations on the original variables. These variables may either replace the old variables or they may be entirely new variables. For example, suppose that there are two original variables, variable 1 and variable 2. Then a third variable, variable 3, could be created by letting variable 3 be the square root of variable 2.

The program provides output of cross correlation matrices through which an indication can be formed of the independence of each of the covariate parameters. The capability of analyzing the cross correlation between covariate parameters permits the user to select covariates with the least interdependence and thus increase the accuracy of the statistical model. For example, if two covariates are highly correlated, the increased probability exists that either the covariates should be combined or one of the covariates should be removed from the analysis. The cross correlation matrices thus provide a means of filtering candidate covariates for inclusion in the Covariance Analysis.

The Analysis-of-Covariance program provides tables of covariance coefficients, standard errors, computed T-values, and confidence levels. A unique mathematical routine within the program structure calculates the confidence levels for each covariate based on the calculated T-values

and degrees of freedom. This eliminates the need for use of detailed statistical tables which is common for all other statistical methods. The confidence levels permit the user to evaluate the relative merit of each covariate parameter in reducing the total variation and thus assist in synthesizing the unique empirical correlation parameters.

Another unique feature provides output of tables of residual analysis which contain for each case: the variate, the estimated variate based on the covariate analysis, the residual and the percent variation in each treatment group. The residual tables are typically plotted, using any standard existing interactive computer technique, to obtain the scatter of data in each treatment group about the mean of the variates. The graphic residual variation provides a definitive representation of the precision attained in the selection of covariates and the trend of any errors in the analysis.

The program also provides the capability of introducing forecast data into the previously defined statistical model in order to test the precision accuracy. This procedure is highly desirable with any statistical analysis, for the introduction of data which is independent of the data utilized to develop the model equations will provide a definitive evaluation of the previous analysis.

A sample input data problem which demonstrates most of the computer program options is included in Appendix A together with the resultant output formulation. A complete listing of the main computer program and the associated subroutine subprograms is presented in Appendix B. A program user's guide (see Appendix C) provides a detailed description of the available program options and defines the sequence and function of each of the program control directives.

#### PROGRAM STRUCTURE

The Analysis-of-Covariance Computer Code consists of a main program and eight subroutines written in Fortran language and compatible with the NAVAIRDEVCON CDC 6600 series computer systems. The computer code listing comprising the Covariance Analysis is included with this report in Appendix B.

#### Program BMD04V

The main program reads the program control cards, reads the input data cards, checks the problem limitations, calculates and prints some of the output values, and controls the calls to the subroutine subprograms.

#### Subroutine MINV

The subroutine MINV is utilized by the main program to invert the cross-product data matrices associated with the least-square solution of



the Total, Treatment, and Error formulations of the statistical models using the standard Gauss-Jordan method.

#### Subroutine GRPSEL

The subroutine GRPSEL assigns group designations to each input data case consistent with user defined boolean selection criteria. If the optional boolean selection feature is being used to place cases in their treatment groups, group definition cards are prepared as shown in the user's guide of Appendix C. A diagnostic message is printed for illegal user defined operations.

#### Subroutine PATTY2

Subroutine PATTY2 prints the data matrices associated with the correlations, cross-products, and inverse of the cross-products for the Total, Treatment, and Error analyses. The routine also prints a diagnostic message for singular inverse cross-product matrices.

#### Subroutine TG41

Subroutine TG41 performs the various user defined transgenerations of input data. By use of the Transgeneration Cards (see User's Guide, Appendix C), new variables may be created by performing algebraic, trigonometric, exponential, and logarithmic transformations on the original variables. The transgeneration codes permit the formulation of any user defined multiple-variable functional relationship. The routine also prints diagnostic messages for violations of transgeneration code restrictions.

#### Subroutine TPWD

This subroutine assigns user specified BCD tape number designations to the main program for exchange and storage of case input data. A diagnostic message is printed for illegal user tape number designations.

#### Subroutine WRT

The subroutine WRT prints most of the output tables and computational results developed by the main program and the other subroutines.

#### Subroutine CONF

The subroutine CONF computes the confidence level associated with each input T-value for the corresponding degrees-of-freedom. The routine eliminates the need for detailed statistical tables by providing a rapid calculation of the Student's T-value at the appropriate confidence level for each covariate parameter.

Subroutine LDAY

The subroutine LDAY calculates and prints the current run-time day, month, and year at the top of each page of output.

PROGRAM MODIFICATIONS

A standard Analysis-of-Covariance computer program with multiple covariates has been modified to include data forecast capability, covariate correlation and residual analyses for Total, Treatment, and Error groups. The resulting statistical method represents a more sophisticated analytical tool with increased computational accuracy.

Major modifications to the original computer program were effected in the following categories:

Input/Output Enhancements

1. Input control cards printed in output.
2. Input Data cards printed in output with case and group numbers.
3. Output values printed in scientific notation.
4. Added assigned group number table for null contingency.
5. Added output paging to report style.
6. Added transgenerated data output.

Computational Enhancements

1. Added more efficient matrix inversion method.
2. Added singular matrix definition and diagnostic message.
3. Added covariate correlation matrices.
4. Added forecast data capability.
5. Added estimates of standard deviation.
6. Added confidence levels for computed T-values.
7. Added residual analyses.

8. Added maximum residual analyses.
9. Added table of intercepts.
10. Added table of overall covariate means.
11. Added table of sum-squares within.
12. Removed restrictions on covariate storage.

CONCLUSIONS

The Analysis-of-Covariance statistical method can be applied to any engineering problem for which a data base of dependent and independent variables exists and for which a requirement exists to relate the variables through a set of empirical correlation equations.

The Covariance statistical method has been used with success, for the past 7 years, at the NAVAIRDEVCON to formulate empirical correlation equations for a wide variety of engineering problems. The statistical method has more capability than the traditional multiple regression procedure and is recommended whenever a correlation is required of qualitative and quantitative parameters.

R E F E R E N C E S

- (a) Dixon, W. J., "(BMD) Biomedical Computer Programs," University of California Press, Los Angeles, 1973.
- (b) Bennett, Carl A., and Franklin, Norman L., "Statistical Analysis In Chemistry and the Chemical Industry," Wiley, 1954.
- (c) Scheffe', Henry, "The Analysis of Variance," Wiley, 1959.

A P P E N D I X    A

ANALYSIS OF COVARIANCE COMPUTER PROGRAM  
SAMPLE INPUT/OUTPUT LISTING

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## DESCRIPTION

The sample case presented in this section is representative of the engineering problems that can be analyzed using the Analysis-of-Covariance statistical method. The example represents a typical aircraft optimum Mach number climb characteristic (dependent variate parameter) in terms of altitude, weight, drag, and ambient temperature (independent covariate parameters). The covariate parameters are related to the variate through partitioning using the treatment groups designators and transgenerated in terms of the multifunctional covariates. This example illustrates the utility of the Covariance Analysis to detect and synthesize the functional relationships between independent and dependent variables.

The input cards for the sample case are presented on pages A-6 through A-13. The first page shows the sample Problem card, the Trans-generation cards, the Group Definition cards, the Label card, the Format card, and the beginning of the variate and covariate parameters. The full list of input variables is continued through page A-13 where the input is terminated with the Covariate Selection card and the finish card.

The output solution for the sample case is presented on pages A-14 through A-128. The output includes the following information: the group means, the correlation matrices, the error analyses, the covariate coefficients, the residual analyses, and the standard deviations. The Analysis-of-Covariance table (page A-59) presents the overall accuracy of the correlations for both the Total and Within analyses. The square root of the mean-square values, which are presented in the table, provides the standard error of the statistical models.

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.2847	190.476100000.000	100.000	0.000
.3052	5000.000100000.000	100.000	0.000
.3229	10000.000100000.000	100.000	0.000
.3432	15000.000100000.000	100.000	0.000
.3670	20000.000100000.000	100.000	0.000
.3943	25000.000100000.000	100.000	0.000
.4259	30000.000100000.000	100.000	0.000
.4327	31000.000100000.000	100.000	0.000
.4396	32000.000100000.000	100.000	0.000
.2903	0.000120000.000	100.000	0.000
.3126	5000.000120000.000	100.000	0.000
.3345	10000.000120000.000	100.000	0.000
.3575	15000.000120000.000	100.000	0.000
.3845	20000.000120000.000	100.000	0.000
.4153	25000.000120000.000	100.000	0.000
.4216	26000.000120000.000	100.000	0.000
.4283	27000.000120000.000	100.000	0.000
.3020	0.000145000.000	100.000	0.000
.3250	5000.000145000.000	100.000	0.000
.3496	10000.000145000.000	100.000	0.000
.3760	15000.000145000.000	100.000	0.000
.4065	20000.000145000.000	100.000	0.000
.4126	21000.000145000.000	100.000	0.000
.2520	0.00070000.000	200.000	0.000
.2647	5000.00070000.000	200.000	0.000
.2782	10000.00070000.000	200.000	0.000
.2939	15000.00070000.000	200.000	0.000
.3116	20000.00070000.000	200.000	0.000
.3340	25000.00070000.000	200.000	0.000
.3577	30000.00070000.000	200.000	0.000
.3858	35000.00070000.000	200.000	0.000

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.3908	36000.000	70000.000	200.000	0.000
.3962	37000.000	70000.000	200.000	0.000
.4019	38000.000	70000.000	200.000	0.000
.2585	0.000	90000.000	200.000	0.000
.2734	5000.000	90000.000	200.000	0.000
.2897	10000.000	90000.000	200.000	0.000
.3083	15000.000	90000.000	200.000	0.000
.3298	20000.000	90000.000	200.000	0.000
.3539	25000.000	90000.000	200.000	0.000
.3822	30000.000	90000.000	200.000	0.000
.3884	31000.000	90000.000	200.000	0.000
.3948	32000.000	90000.000	200.000	0.000
.2619	0.000	100000.000	200.000	0.000
.2783	5000.000	100000.000	200.000	0.000
.2956	10000.000	100000.000	200.000	0.000
.3160	15000.000	100000.000	200.000	0.000
.3382	20000.000	100000.000	200.000	0.000
.3639	25000.000	100000.000	200.000	0.000
.3696	26000.000	100000.000	200.000	0.000
.3754	27000.000	100000.000	200.000	0.000
.3815	28000.000	100000.000	200.000	0.000
.3878	29000.000	100000.000	200.000	0.000
.2691	0.000	120000.000	200.000	0.000
.2887	5000.000	120000.000	200.000	0.000
.3083	10000.000	120000.000	200.000	0.000
.3304	15000.000	120000.000	200.000	0.000
.3550	20000.000	120000.000	200.000	0.000
.3605	21000.000	120000.000	200.000	0.000
.3661	22000.000	120000.000	200.000	0.000
.3719	23000.000	120000.000	200.000	0.000
.3779	24000.000	120000.000	200.000	0.000
.2821	142.857	145000.000	200.000	0.000
.3033	5000.000	145000.000	200.000	0.000
.3236	10000.000	145000.000	200.000	0.000
.3477	15000.000	145000.000	200.000	0.000
.3529	16000.000	145000.000	200.000	0.000
.3584	17000.000	145000.000	200.000	0.000
.3641	18000.000	145000.000	200.000	0.000
.3057	0.000	70000.000	-50.000	18.000
.3284	5000.000	70000.000	-50.000	18.000
.3476	10000.000	70000.000	-50.000	18.000
.3715	15535.714	70000.000	-50.000	18.000
.3930	20000.000	70000.000	-50.000	18.000
.4240	25119.048	70000.000	-50.000	18.000
.4592	30000.000	70000.000	-50.000	18.000
.4919	35000.000	70000.000	-50.000	18.000
.5292	40000.000	70000.000	-50.000	18.000
.5419	41000.000	70000.000	-50.000	18.000
.5488	42000.000	70000.000	-50.000	18.000
.5498	43000.000	70000.000	-50.000	18.000
.3094	0.000	90000.000	-50.000	18.000
.3344	5000.000	90000.000	-50.000	18.000
.3620	10000.000	90000.000	-50.000	18.000
.3920	15000.000	90000.000	-50.000	18.000
.4220	20000.000	90000.000	-50.000	18.000
.4503	25000.000	90000.000	-50.000	18.000
.4854	30000.000	90000.000	-50.000	18.000
.5325	35000.000	90000.000	-50.000	18.000
.5439	36000.000	90000.000	-50.000	18.000
.5494	37000.000	90000.000	-50.000	18.000
.5502	38000.000	90000.000	-50.000	18.000
.3174	0.000	100000.000	-50.000	18.000
.3455	5000.000	100000.000	-50.000	18.000
.3743	10000.000	100000.000	-50.000	18.000
.4040	15000.000	100000.000	-50.000	18.000
.4350	20476.190	100000.000	-50.000	18.000
.4650	25476.190	100000.000	-50.000	18.000
.5026	30000.000	100000.000	-50.000	18.000
.5495	35000.000	100000.000	-50.000	18.000
.5498	36000.000	100000.000	-50.000	18.000
.3364	0.000	120000.000	-50.000	18.000
.3647	5000.000	120000.000	-50.000	18.000
.3935	10000.000	120000.000	-50.000	18.000
.4180	14583.333	120000.000	-50.000	18.000
.4480	19464.286	120000.000	-50.000	18.000
.4892	25000.000	120000.000	-50.000	18.000
.4987	26000.000	120000.000	-50.000	18.000
.5068	27000.000	120000.000	-50.000	18.000
.5156	28000.000	120000.000	-50.000	18.000
.5257	29000.000	120000.000	-50.000	18.000
.5361	30000.000	120000.000	-50.000	18.000
.3532	0.000	145000.000	-50.000	18.000
.3807	5000.000	145000.000	-50.000	18.000
.4070	10000.000	145000.000	-50.000	18.000
.4382	15000.000	145000.000	-50.000	18.000
.4759	20000.000	145000.000	-50.000	18.000
.4854	21000.000	145000.000	-50.000	18.000
.4939	22000.000	145000.000	-50.000	18.000
.5022	23000.000	145000.000	-50.000	18.000
.5103	24000.000	145000.000	-50.000	18.000
.5189	25000.000	145000.000	-50.000	18.000
.2848	0.000	70000.000	0.000	18.000
.3048	5000.000	70000.000	0.000	18.000
.3275	10178.571	70000.000	0.000	18.000
.3474	15000.000	70000.000	0.000	18.000
.3734	20000.000	70000.000	0.000	18.000
.3985	25000.000	70000.000	0.000	18.000
.4261	30000.000	70000.000	0.000	18.000
.4579	35238.095	70000.000	0.000	18.000
.4896	40000.000	70000.000	0.000	18.000
.4965	41000.000	70000.000	0.000	18.000
.2948	0.000	90000.000	0.000	18.000
.3197	5000.000	90000.000	0.000	18.000
.3445	10000.000	90000.000	0.000	18.000
.3664	15000.000	90000.000	0.000	18.000
.3913	20000.000	90000.000	0.000	18.000
.4213	25000.000	90000.000	0.000	18.000
.4521	30000.000	90000.000	0.000	18.000
.4912	35000.000	90000.000	0.000	18.000
.4981	36000.000	90000.000	0.000	18.000
.3015	0.000	100000.000	0.000	18.000
.3269	5000.000	100000.000	0.000	18.000
.3505	10000.000	100000.000	0.000	18.000
.3736	15000.000	100000.000	0.000	18.000
.4019	20000.000	100000.000	0.000	18.000
.4310	25000.000	100000.000	0.000	18.000
.4652	30000.000	100000.000	0.000	18.000
.4732	31000.000	100000.000	0.000	18.000
.4816	32000.000	100000.000	0.000	18.000
.4901	33000.000	100000.000	0.000	18.000

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.3116	0.000120000.000	0.000	18.000
.3365	5000.000120000.000	0.000	18.000
.3633	10000.000120000.000	0.000	18.000
.3909	15000.000120000.000	0.000	18.000
.4195	20000.000120000.000	0.000	18.000
.4522	25000.000120000.000	0.000	18.000
.4897	26000.000120000.000	0.000	18.000
.4676	27000.000120000.000	0.000	18.000
.4760	28000.000120000.000	0.000	18.000
.3263	0.000145000.000	0.000	18.000
.3533	5000.000145000.000	0.000	18.000
.3810	10000.000145000.000	0.000	18.000
.4100	15000.000145000.000	0.000	18.000
.4418	20000.000145000.000	0.000	18.000
.4490	21000.000145000.000	0.000	18.000
.4565	22000.000145000.000	0.000	18.000
.2613	0.00070000.000	100.000	18.000
.2780	5000.00070000.000	100.000	18.000
.2955	10000.00070000.000	100.000	18.000
.3128	15000.00070000.000	100.000	18.000
.3331	20000.00070000.000	100.000	18.000
.3547	25000.00070000.000	100.000	18.000
.3806	30000.00070000.000	100.000	18.000
.4117	35000.00070000.000	100.000	18.000
.4171	36000.00070000.000	100.000	18.000
.4230	37000.00070000.000	100.000	18.000
.4292	38000.00070000.000	100.000	18.000
.4356	39000.00070000.000	100.000	18.000
.2711	0.00090000.000	100.000	18.000
.2892	5000.00090000.000	100.000	18.000
.3076	10000.00090000.000	100.000	18.000
.3278	15000.00090000.000	100.000	18.000
.3501	20000.00090000.000	100.000	18.000
.3763	25000.00090000.000	100.000	18.000
.4072	30000.00090000.000	100.000	18.000
.4139	31000.00090000.000	100.000	18.000
.4212	32000.00090000.000	100.000	18.000
.4284	33000.00090000.000	100.000	18.000
.2745	0.000100000.000	100.000	18.000
.2956	5000.000100000.000	100.000	18.000
.3141	10000.000100000.000	100.000	18.000
.3351	15000.000100000.000	100.000	18.000
.3590	20000.000100000.000	100.000	18.000
.3874	25000.000100000.000	100.000	18.000
.3936	26000.000100000.000	100.000	18.000
.4000	27000.000100000.000	100.000	18.000
.4066	28000.000100000.000	100.000	18.000
.4135	29000.000100000.000	100.000	18.000
.4205	30000.000100000.000	100.000	18.000
.2825	0.000120000.000	100.000	18.000
.3044	5000.000120000.000	100.000	18.000
.3265	10000.000120000.000	100.000	18.000
.3499	15000.000120000.000	100.000	18.000
.3773	20000.000120000.000	100.000	18.000
.3833	21000.000120000.000	100.000	18.000
.3895	22000.000120000.000	100.000	18.000
.3959	23000.000120000.000	100.000	18.000
.4026	24000.000120000.000	100.000	18.000
.4095	25000.000120000.000	100.000	18.000
.2929	0.000145000.000	100.000	18.000
.3172	5000.000145000.000	100.000	18.000
.3424	10000.000145000.000	100.000	18.000
.3691	15000.000145000.000	100.000	18.000
.3750	16000.000145000.000	100.000	18.000
.3811	17000.000145000.000	100.000	18.000
.3873	18000.000145000.000	100.000	18.000
.3937	19000.000145000.000	100.000	18.000
.2456	0.00070000.000	200.000	18.000
.2555	5000.00070000.000	200.000	18.000
.2705	10000.00070000.000	200.000	18.000
.2863	15000.00070000.000	200.000	18.000
.3042	20000.00070000.000	200.000	18.000
.3253	25000.00070000.000	200.000	18.000
.3506	30000.00070000.000	200.000	18.000
.3797	35000.00070000.000	200.000	18.000
.3849	36000.00070000.000	200.000	18.000
.3905	37000.00070000.000	200.000	18.000
.2521	0.00090000.000	200.000	18.000
.2651	5000.00090000.000	200.000	18.000
.2819	10000.00090000.000	200.000	18.000
.3009	15000.00090000.000	200.000	18.000
.3228	20000.00090000.000	200.000	18.000
.3472	25000.00090000.000	200.000	18.000
.3761	30000.00090000.000	200.000	18.000
.3824	31000.00090000.000	200.000	18.000
.2557	0.000100000.000	200.000	18.000
.2701	5000.000100000.000	200.000	18.000
.2881	10000.000100000.000	200.000	18.000
.3087	15000.000100000.000	200.000	18.000
.3223	20000.000100000.000	200.000	18.000
.3576	25000.000100000.000	200.000	18.000
.3634	26000.000100000.000	200.000	18.000
.3694	27000.000100000.000	200.000	18.000
.3756	28000.000100000.000	200.000	18.000
.2634	0.000120000.000	200.000	18.000
.2807	5000.000120000.000	200.000	18.000
.3012	10000.000120000.000	200.000	18.000
.3238	15000.000120000.000	200.000	18.000
.3490	20000.000120000.000	200.000	18.000
.3545	21000.000120000.000	200.000	18.000
.3602	22000.000120000.000	200.000	18.000
.2737	0.000145000.000	200.000	18.000
.2967	5000.000145000.000	200.000	18.000
.3173	10000.000145000.000	200.000	18.000
.3419	15000.000145000.000	200.000	18.000
.3475	16000.000145000.000	200.000	18.000
.2936	0.00070000.000	-50.000	36.000
.3129	5000.00070000.000	-50.000	36.000
.3347	10000.00070000.000	-50.000	36.000
.3605	15476.19070000.000	-50.000	36.000
.3864	20000.00070000.000	-50.000	36.000
.4193	25000.00070000.000	-50.000	36.000
.4488	30000.00070000.000	-50.000	36.000
.4844	35000.00070000.000	-50.000	36.000
.5174	40000.00070000.000	-50.000	36.000
.5285	41000.00070000.000	-50.000	36.000
.5401	42000.00070000.000	-50.000	36.000
.3018	0.00090000.000	-50.000	36.000
.3281	5000.00090000.000	-50.000	36.000
.3556	10000.00090000.000	-50.000	36.000

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.3846	15000.000	90000.000	-50.000	36.000
.4131	20000.000	90000.000	-50.000	36.000
.4395	25000.000	90000.000	-50.000	36.000
.4778	30000.000	90000.000	-50.000	36.000
.5189	35000.000	90000.000	-50.000	36.000
.5315	36000.000	90000.000	-50.000	36.000
.3108	0.000	100000.000	-50.000	36.000
.3382	5000.000	100000.000	-50.000	36.000
.3666	10000.000	100000.000	-50.000	36.000
.3954	15000.000	100000.000	-50.000	36.000
.4210	19761.905	100000.000	-50.000	36.000
.4528	25000.000	100000.000	-50.000	36.000
.4953	30000.000	100000.000	-50.000	36.000
.5054	31000.000	100000.000	-50.000	36.000
.5147	32000.000	100000.000	-50.000	36.000
.5232	33000.000	100000.000	-50.000	36.000
.5332	34000.000	100000.000	-50.000	36.000
.3263	0.000	120000.000	-50.000	36.000
.3538	5000.000	120000.000	-50.000	36.000
.3820	10000.000	120000.000	-50.000	36.000
.4092	15000.000	120000.000	-50.000	36.000
.4405	20000.000	120000.000	-50.000	36.000
.4796	25000.000	120000.000	-50.000	36.000
.4892	26000.000	120000.000	-50.000	36.000
.4992	27000.000	120000.000	-50.000	36.000
.5081	28000.000	120000.000	-50.000	36.000
.5176	29000.000	120000.000	-50.000	36.000
.3393	0.000	145000.000	-50.000	36.000
.3693	5000.000	145000.000	-50.000	36.000
.3997	10000.000	145000.000	-50.000	36.000
.4302	15000.000	145000.000	-50.000	36.000
.4671	20000.000	145000.000	-50.000	36.000
.4761	21000.000	145000.000	-50.000	36.000
.4856	22000.000	145000.000	-50.000	36.000
.2747	0.000	70000.000	0.000	36.000
.2919	5000.000	70000.000	0.000	36.000
.3168	10000.000	70000.000	0.000	36.000
.3400	15000.000	70000.000	0.000	36.000
.3632	20000.000	70000.000	0.000	36.000
.3879	24857.143	70000.000	0.000	36.000
.4187	30000.000	70000.000	0.000	36.000
.4523	35000.000	70000.000	0.000	36.000
.4580	36000.000	70000.000	0.000	36.000
.4641	37000.000	70000.000	0.000	36.000
.4704	38000.000	70000.000	0.000	36.000
.4770	39000.000	70000.000	0.000	36.000
.4838	40000.000	70000.000	0.000	36.000
.2884	0.000	90000.000	0.000	36.000
.3109	5000.000	90000.000	0.000	36.000
.3341	10000.000	90000.000	0.000	36.000
.3559	15000.000	90000.000	0.000	36.000
.3820	20000.000	90000.000	0.000	36.000
.4123	25000.000	90000.000	0.000	36.000
.4452	30000.000	90000.000	0.000	36.000
.4526	31000.000	90000.000	0.000	36.000
.4601	32000.000	90000.000	0.000	36.000
.4685	33000.000	90000.000	0.000	36.000
.4770	34000.000	90000.000	0.000	36.000
.4855	35000.000	90000.000	0.000	36.000
.2942	0.000	100000.000	0.000	36.000
.3178	5000.000	100000.000	0.000	36.000
.3399	10000.000	100000.000	0.000	36.000
.3645	15000.000	100000.000	0.000	36.000
.3923	20000.000	100000.000	0.000	36.000
.4233	25000.000	100000.000	0.000	36.000
.4587	30000.000	100000.000	0.000	36.000
.4668	31000.000	100000.000	0.000	36.000
.4754	32000.000	100000.000	0.000	36.000
.3026	0.000	120000.000	0.000	36.000
.3287	5000.000	120000.000	0.000	36.000
.3546	10000.000	120000.000	0.000	36.000
.3817	15000.000	120000.000	0.000	36.000
.4125	20000.000	120000.000	0.000	36.000
.4456	25000.000	120000.000	0.000	36.000
.4532	26000.000	120000.000	0.000	36.000
.3163	0.000	145000.000	0.000	36.000
.3437	5000.000	145000.000	0.000	36.000
.3730	10000.000	145000.000	0.000	36.000
.4032	15000.000	145000.000	0.000	36.000
.4091	16000.000	145000.000	0.000	36.000
.4152	17000.000	145000.000	0.000	36.000
.4216	18000.000	145000.000	0.000	36.000
.4281	19000.000	145000.000	0.000	36.000
.4351	20000.000	145000.000	0.000	36.000
.2542	0.000	70000.000	100.000	36.000
.2690	5000.000	70000.000	100.000	36.000
.2848	10000.000	70000.000	100.000	36.000
.3036	15000.000	70000.000	100.000	36.000
.3241	20000.000	70000.000	100.000	36.000
.3464	25000.000	70000.000	100.000	36.000
.3727	30000.000	70000.000	100.000	36.000
.4046	35000.000	70000.000	100.000	36.000
.4104	36000.000	70000.000	100.000	36.000
.4166	37000.000	70000.000	100.000	36.000
.4232	38000.000	70000.000	100.000	36.000
.2623	0.000	90000.000	100.000	36.000
.2795	5000.000	90000.000	100.000	36.000
.2983	10000.000	90000.000	100.000	36.000
.3197	15000.000	90000.000	100.000	36.000
.3423	20000.000	90000.000	100.000	36.000
.3687	25000.000	90000.000	100.000	36.000
.4006	30000.000	90000.000	100.000	36.000
.4078	31000.000	90000.000	100.000	36.000
.4152	32000.000	90000.000	100.000	36.000
.2667	0.000	100000.000	100.000	36.000
.2846	5000.000	100000.000	100.000	36.000
.3053	10000.000	100000.000	100.000	36.000
.3274	15000.000	100000.000	100.000	36.000
.3515	20000.000	100000.000	100.000	36.000
.3802	25000.000	100000.000	100.000	36.000
.3865	26000.000	100000.000	100.000	36.000
.3931	27000.000	100000.000	100.000	36.000
.4000	28000.000	100000.000	100.000	36.000
.2754	0.000	120000.000	100.000	36.000
.2953	5000.000	120000.000	100.000	36.000
.3191	10000.000	120000.000	100.000	36.000
.3429	15000.000	120000.000	100.000	36.000
.3704	20000.000	120000.000	100.000	36.000
.3784	21000.000	120000.000	100.000	36.000
.3826	22000.000	120000.000	100.000	36.000

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.3891	23000.000120000.000	100.000	36.000
.2868	0.000145000.000	100.000	36.000
.3096	5000.000145000.000	100.000	36.000
.3256	10000.000145000.000	100.000	36.000
.3529	15000.000145000.000	100.000	36.000
.3688	16000.000145000.000	100.000	36.000
.2363	0.00070000.000	200.000	36.000
.2471	5000.00070000.000	200.000	36.000
.2622	10000.00070000.000	200.000	36.000
.2788	15000.00070000.000	200.000	36.000
.2973	20000.00070000.000	200.000	36.000
.3187	25000.00070000.000	200.000	36.000
.3438	30000.00070000.000	200.000	36.000
.3733	35000.00070000.000	200.000	36.000
.3787	36000.00070000.000	200.000	36.000
.2439	0.00090000.000	200.000	36.000
.2572	5000.00090000.000	200.000	36.000
.2743	10000.00090000.000	200.000	36.000
.2939	15000.00090000.000	200.000	36.000
.3165	20000.00090000.000	200.000	36.000
.3410	25000.00090000.000	200.000	36.000
.3464	26000.00090000.000	200.000	36.000
.3519	27000.00090000.000	200.000	36.000
.3577	28000.00090000.000	200.000	36.000
.3638	29000.00090000.000	200.000	36.000
.2479	0.000100000.000	200.000	36.000
.2625	5000.000100000.000	200.000	36.000
.2809	10000.000100000.000	200.000	36.000
.3018	15000.000100000.000	200.000	36.000
.3254	20000.000100000.000	200.000	36.000
.3517	25000.000100000.000	200.000	36.000
.3575	26000.000100000.000	200.000	36.000
.2564	0.000120000.000	200.000	36.000
.2736	5000.000120000.000	200.000	36.000
.2943	10000.000120000.000	200.000	36.000
.3178	15000.000120000.000	200.000	36.000
.3227	16000.000120000.000	200.000	36.000
.3278	17000.000120000.000	200.000	36.000
.3328	18000.000120000.000	200.000	36.000
.3375	19000.000120000.000	200.000	36.000
.3432	20000.000120000.000	200.000	36.000
.2675	0.000145000.000	200.000	36.000
.2875	5000.000145000.000	200.000	36.000
.3115	10000.000145000.000	200.000	36.000
.3162	11000.000145000.000	200.000	36.000
.3211	12000.000145000.000	200.000	36.000
.3260	13000.000145000.000	200.000	36.000
.3156	0.00070000.000	-50.000	-18.000
.3465	5416.66770000.000	-50.000	-18.000
.3750	10357.14370000.000	-50.000	-18.000
.3965	15000.00070000.000	-50.000	-18.000
.4116	20000.00070000.000	-50.000	-18.000
.4374	25000.00070000.000	-50.000	-18.000
.4734	30000.00070000.000	-50.000	-18.000
.5211	35000.00070000.000	-50.000	-18.000
.5474	40000.00070000.000	-50.000	-18.000
.5496	41000.00070000.000	-50.000	-18.000
.5502	42000.00070000.000	-50.000	-18.000
.5505	43000.00070000.000	-50.000	-18.000
.5543	44000.00070000.000	-50.000	-18.000
.5598	45000.00070000.000	-50.000	-18.000
.3165	0.00090000.000	-50.000	-18.000
.3504	5000.00090000.000	-50.000	-18.000
.3818	10000.00090000.000	-50.000	-18.000
.4050	15000.00090000.000	-50.000	-18.000
.4356	20000.00090000.000	-50.000	-18.000
.4701	25000.00090000.000	-50.000	-18.000
.5100	30000.00090000.000	-50.000	-18.000
.5482	35000.00090000.000	-50.000	-18.000
.5495	36000.00090000.000	-50.000	-18.000
.5500	37000.00090000.000	-50.000	-18.000
.5507	38000.00090000.000	-50.000	-18.000
.5555	39000.00090000.000	-50.000	-18.000
.5611	40000.00090000.000	-50.000	-18.000
.3200	0.000100000.000	-50.000	-18.000
.3545	5000.000100000.000	-50.000	-18.000
.3882	10000.000100000.000	-50.000	-18.000
.4170	15000.000100000.000	-50.000	-18.000
.4487	20000.000100000.000	-50.000	-18.000
.4808	25000.000100000.000	-50.000	-18.000
.5217	30000.000100000.000	-50.000	-18.000
.5500	35000.000100000.000	-50.000	-18.000
.5509	36000.000100000.000	-50.000	-18.000
.5566	37000.000100000.000	-50.000	-18.000
.5629	38000.000100000.000	-50.000	-18.000
.3346	0.000120000.000	-50.000	-18.000
.3707	5000.000120000.000	-50.000	-18.000
.4078	10000.000120000.000	-50.000	-18.000
.4378	15000.000120000.000	-50.000	-18.000
.4672	20000.000120000.000	-50.000	-18.000
.5026	25000.000120000.000	-50.000	-18.000
.5488	30000.000120000.000	-50.000	-18.000
.5489	31000.000120000.000	-50.000	-18.000
.5507	32000.000120000.000	-50.000	-18.000
.5547	33000.000120000.000	-50.000	-18.000
.5608	34000.000120000.000	-50.000	-18.000
.3455	0.000145000.000	-50.000	-18.000
.3857	5000.000145000.000	-50.000	-18.000
.4254	10000.000145000.000	-50.000	-18.000
.4555	14523.810145000.000	-50.000	-18.000
.4925	20000.000145000.000	-50.000	-18.000
.5342	25000.000145000.000	-50.000	-18.000
.5438	26000.000145000.000	-50.000	-18.000
.5494	27000.000145000.000	-50.000	-18.000
.5501	28000.000145000.000	-50.000	-18.000
.2925	0.00070000.000	0.000	-18.000
.3190	5000.00070000.000	0.000	-18.000
.3473	10000.00070000.000	0.000	-18.000
.3665	14464.28670000.000	0.000	-18.000
.3885	20000.00070000.000	0.000	-18.000
.4140	25238.09570000.000	0.000	-18.000
.4415	30000.00070000.000	0.000	-18.000
.4721	35000.00070000.000	0.000	-18.000
.5068	40000.00070000.000	0.000	-18.000
.5159	41000.00070000.000	0.000	-18.000
.5240	42000.00070000.000	0.000	-18.000
.5315	43000.00070000.000	0.000	-18.000
.5385	44000.00070000.000	0.000	-18.000
.3005	0.00090000.000	0.000	-18.000
.3310	5000.00090000.000	0.000	-18.000



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.3601	10000.000	90000.000	0.000	-18.000
.3867	15000.000	90000.000	0.000	-18.000
.4112	20000.000	90000.000	0.000	-18.000
.4354	25000.000	90000.000	0.000	-18.000
.4665	30000.000	90000.000	0.000	-18.000
.5086	35000.000	90000.000	0.000	-18.000
.5182	36000.000	90000.000	0.000	-18.000
.5259	37000.000	90000.000	0.000	-18.000
.5328	38000.000	90000.000	0.000	-18.000
.5402	39000.000	90000.000	0.000	-18.000
.3082	0.000	100000.000	0.000	-18.000
.3393	5000.000	100000.000	0.000	-18.000
.3699	10000.000	100000.000	0.000	-18.000
.3959	15000.000	100000.000	0.000	-18.000
.4176	20000.000	100000.000	0.000	-18.000
.4460	25000.000	100000.000	0.000	-18.000
.4797	30000.000	100000.000	0.000	-18.000
.5273	35000.000	100000.000	0.000	-18.000
.5343	36000.000	100000.000	0.000	-18.000
.3172	0.000	120000.000	0.000	-18.000
.3511	5000.000	120000.000	0.000	-18.000
.3832	10000.000	120000.000	0.000	-18.000
.4074	15000.000	120000.000	0.000	-18.000
.4343	20000.000	120000.000	0.000	-18.000
.4657	25000.000	120000.000	0.000	-18.000
.5107	30000.000	120000.000	0.000	-18.000
.5196	31000.000	120000.000	0.000	-18.000
.5286	32000.000	120000.000	0.000	-18.000
.3270	0.000	145000.000	0.000	-18.000
.3621	5000.000	145000.000	0.000	-18.000
.3975	10000.000	145000.000	0.000	-18.000
.4247	15000.000	145000.000	0.000	-18.000
.4562	20000.000	145000.000	0.000	-18.000
.4840	25000.000	145000.000	0.000	-18.000
.5029	26000.000	145000.000	0.000	-18.000
.2648	0.000	70000.000	100.000	-18.000
.2898	5000.000	70000.000	100.000	-18.000
.3133	10000.000	70000.000	100.000	-18.000
.3333	15000.000	70000.000	100.000	-18.000
.3508	20000.000	70000.000	100.000	-18.000
.3722	25000.000	70000.000	100.000	-18.000
.3964	30000.000	70000.000	100.000	-18.000
.4242	35000.000	70000.000	100.000	-18.000
.4510	40000.000	70000.000	100.000	-18.000
.4574	41000.000	70000.000	100.000	-18.000
.2750	0.000	90000.000	100.000	-18.000
.3019	5000.000	90000.000	100.000	-18.000
.3259	10000.000	90000.000	100.000	-18.000
.3449	15000.000	90000.000	100.000	-18.000
.3667	20000.000	90000.000	100.000	-18.000
.3915	25000.000	90000.000	100.000	-18.000
.4201	30000.000	90000.000	100.000	-18.000
.4525	35000.000	90000.000	100.000	-18.000
.4589	36000.000	90000.000	100.000	-18.000
.2783	0.000	100000.000	100.000	-18.000
.3054	5000.000	100000.000	100.000	-18.000
.3312	10000.000	100000.000	100.000	-18.000
.3517	15000.000	100000.000	100.000	-18.000
.3749	20000.000	100000.000	100.000	-18.000
.4014	25000.000	100000.000	100.000	-18.000
.4317	30000.000	100000.000	100.000	-18.000
.4380	31000.000	100000.000	100.000	-18.000
.4446	32000.000	100000.000	100.000	-18.000
.4517	33000.000	100000.000	100.000	-18.000
.2865	0.000	120000.000	100.000	-18.000
.3150	5000.000	120000.000	100.000	-18.000
.3425	10000.000	120000.000	100.000	-18.000
.3654	15000.000	120000.000	100.000	-18.000
.3914	20000.000	120000.000	100.000	-18.000
.4209	25000.000	120000.000	100.000	-18.000
.4274	26000.000	120000.000	100.000	-18.000
.4339	27000.000	120000.000	100.000	-18.000
.4405	28000.000	120000.000	100.000	-18.000
.2987	0.000	145000.000	100.000	-18.000
.3299	5000.000	145000.000	100.000	-18.000
.3571	10000.000	145000.000	100.000	-18.000
.3831	15000.000	145000.000	100.000	-18.000
.4118	20000.000	145000.000	100.000	-18.000
.4178	21000.000	145000.000	100.000	-18.000
.4240	22000.000	145000.000	100.000	-18.000
.4307	23000.000	145000.000	100.000	-18.000
.2515	0.000	70000.000	200.000	-18.000
.2724	5000.000	70000.000	200.000	-18.000
.2857	10000.000	70000.000	200.000	-18.000
.3021	15000.000	70000.000	200.000	-18.000
.3212	20000.000	70000.000	200.000	-18.000
.3417	25000.000	70000.000	200.000	-18.000
.3645	30000.000	70000.000	200.000	-18.000
.3915	35000.000	70000.000	200.000	-18.000
.3965	36000.000	70000.000	200.000	-18.000
.4015	37000.000	70000.000	200.000	-18.000
.4069	38000.000	70000.000	200.000	-18.000
.4125	39000.000	70000.000	200.000	-18.000
.4184	40000.000	70000.000	200.000	-18.000
.2572	0.000	90000.000	200.000	-18.000
.2799	5000.000	90000.000	200.000	-18.000
.2977	10000.000	90000.000	200.000	-18.000
.3163	15000.000	90000.000	200.000	-18.000
.3372	20000.000	90000.000	200.000	-18.000
.3606	25000.000	90000.000	200.000	-18.000
.3880	30000.000	90000.000	200.000	-18.000
.3940	31000.000	90000.000	200.000	-18.000
.4002	32000.000	90000.000	200.000	-18.000
.4066	33000.000	90000.000	200.000	-18.000
.4131	34000.000	90000.000	200.000	-18.000
.2604	0.000	100000.000	200.000	-18.000
.2838	5000.000	100000.000	200.000	-18.000
.3036	10000.000	100000.000	200.000	-18.000
.3233	15000.000	100000.000	200.000	-18.000
.3451	20000.000	100000.000	200.000	-18.000
.3704	25000.000	100000.000	200.000	-18.000
.3998	30000.000	100000.000	200.000	-18.000
.4062	31000.000	100000.000	200.000	-18.000
.2669	0.000	120000.000	200.000	-18.000
.2922	5000.000	120000.000	200.000	-18.000
.3157	10000.000	120000.000	200.000	-18.000
.3369	15000.000	120000.000	200.000	-18.000
.3613	20000.000	120000.000	200.000	-18.000
.3897	25000.000	120000.000	200.000	-18.000
.3958	26000.000	120000.000	200.000	-18.000

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.2765	0.000145000.000	200.000	-18.000
.3034	5000.000145000.000	200.000	-18.000
.3299	10000.000145000.000	200.000	-18.000
.3538	15000.000145000.000	200.000	-18.000
.3595	16000.000145000.000	200.000	-18.000
.3647	17000.000145000.000	200.000	-18.000
.3701	18000.000145000.000	200.000	-18.000
.3757	19000.000145000.000	200.000	-18.000
.3814	20000.000145000.000	200.000	-18.000

CVRSEL27071904180616261008271123132825201430051543214731424656  
FINISH

BMD04V - ANALYSIS OF COVARIANCE - MULTIPLE COVARIATES - REVISED OCTOBER 2, 1972  
 HEALTH SCIENCES COMPUTING FACILITY, UCLA ( NADC REVISION JULY 2, 1976 J.J. FRANZ )

FRIDAY, JUL 2, 1976

PROBLM4MACDT0200770010503101YES005 H002YESYESYES YES H0YES740001

PROBLEM CODE.....4MACDT  
 NUMBER OF TREATMENT GROUPS..... 2  
 TOTAL NUMBER OF CASES..... 770  
 NUMBER OF CARDS PER CASE..... 1  
 NUMBER OF ENTERING VARIABLES..... 5  
 NUMBER OF VARIABLES ADDED..... 31  
 INDEX OF THE DEPENDENT VARIABLE..... 1  
 PRINT DATA INPUT..... YES  
 NUMBER OF VARIABLES NAMED..... 5  
 USE DATA CARDS OF LAST PROBLEM.. NO  
 NUMBER OF GROUP DEFINITION CARDS 2  
 PRINT RESIDUALS (WITHIN)..... YES  
 PRINT RESIDUALS (TOTAL)..... YES  
 PRINT TRANSGENERATED VARIABLES.. YES  
 PRINT CORRELATION MATRICES..... YES  
 FORECAST DATA INPUT..... NO  
 REWIND INPUT TAPE..... YES  
 NUMBER OF TRANSGENERATION CARDS. 74  
 SPECIFIED BCD TAPE NUMBER..... 0  
 NUMBER OF VARIABLE FORMAT CARDS. 1

FRIDAY, JUL 2, 1976

## TRANS-GENERATION CARDS

CARD NEW TRANS OLD CONST.  
 NO. VAR. CODE VAR(A) OR VAR(B)

1	2	9	2	.00010
2	3	9	3	.00010
3	6	10	2	.50000
4	7	10	2	1.50000
5	8	10	3	-.50000
6	9	13	3	3.00000
7	10	13	9	3.00000
8	11	13	4	4.00000
9	12	13	5	5.00000
10	13	13	12	5.00000
11	14	13	6	8.00000
12	15	13	7	10.00000
13	16	13	7	8.00000
14	17	13	7	10.00000
15	18	13	4	6.00000
16	19	13	4	7.00000
17	20	13	4	8.00000
18	21	13	4	10.00000
19	22	13	11	6.00000
20	23	13	11	7.00000
21	24	13	11	8.00000
22	25	13	11	10.00000
23	26	13	5	6.00000
24	27	13	5	7.00000
25	28	13	5	8.00000
26	29	13	5	10.00000
27	30	13	13	6.00000
28	31	13	13	7.00000
29	32	13	13	8.00000
30	33	13	13	10.00000
31	34	13	5	4.00000
32	35	13	5	11.00000
33	36	13	13	4.00000
34	37	13	13	11.00000
35	38	13	5	14.00000
36	39	13	5	15.00000
37	40	13	5	16.00000
38	41	13	5	17.00000
39	42	13	5	18.00000
40	43	13	5	19.00000
41	44	13	5	20.00000
42	45	13	5	21.00000
43	46	13	5	22.00000
44	47	13	5	23.00000
45	48	13	5	24.00000
46	49	13	5	25.00000
47	50	13	13	14.00000
48	51	13	13	15.00000
49	52	13	13	16.00000
50	53	13	13	17.00000

FRIDAY, JUL 2, 1976

## TRANS-GENERATION CARDS

CARD NEW TRANS OLD CONST.  
NO. VAR. CODE VAR(A) OR VAR(B)

51	54	13	13	18.00000
52	55	13	13	19.00000
53	56	13	13	20.00000
54	57	13	13	21.00000
55	58	13	13	22.00000
56	59	13	13	23.00000
57	60	13	13	24.00000
58	61	13	13	25.00000
59	62	13	38	4.00000
60	63	13	42	10.00000
61	64	13	43	8.00000
62	65	13	45	7.00000
63	66	13	46	8.00000
64	67	13	46	10.00000
65	68	13	47	8.00000
66	69	13	47	10.00000
67	70	13	50	4.00000
68	71	13	51	4.00000
69	72	13	52	4.00000
70	73	13	53	4.00000
71	74	13	58	8.00000
72	75	13	58	10.00000
73	76	13	59	8.00000
74	77	13	59	10.00000

## GROUP DEFINITION CARDS

FRIDAY, JUL 2, 1976

A CASE IS IN GROUP 1 IF,  
VAR( 5) IS LE 0.00000 \*

A CASE IS IN GROUP 2 IF,  
VAR( 5) IS GT 0.00000 \*

FRIDAY, JUL 2, 1976

LABELS CARDS

0001	MACH	0002	ALT	0003	WT	0004	DC	0005	DT
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THE VARIABLE FORMAT CARDS

(10X.F10.4,4F10.3)

FRIDAY, JUL 2, 1976

FRIDAY, JUL 2, 1976

GROUP NO. SPECIFIED	NO. ASSIGNED*	SAMPLE SIZE
1	1	401
2	2	369

FRIDAY, JUL 2, 1976

COVARIATE SELECTION CARDS

CVRSEL27071904180616261008271123132825201430051543214731424636

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DATA INPUT	CASE NUMBER	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	GROUP NUMBER
CASE NUMBER	1	.3265	119.048	70000.000	-50.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1
CASE NUMBER	2	.3436	5000.000	70000.000	-50.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1
CASE NUMBER	3	.3605	10238.095	70000.000	-50.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1
CASE NUMBER	4	.3802	15000.000	70000.000	-50.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1
CASE NUMBER	5	.4021	20000.000	70000.000	-50.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1
CASE NUMBER	6	.4315	25000.000	70000.000	-50.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1
CASE NUMBER	7	.4661	30000.000	70000.000	-50.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1
CASE NUMBER	8	.5010	35000.000	70000.000	-50.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1
CASE NUMBER	9	.5415	40000.000	70000.000	-50.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1
CASE NUMBER	10	.5491	41000.000	70000.000	-50.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1
CASE NUMBER	11	.5504	42000.000	70000.000	-50.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1
CASE NUMBER	12	.5501	43000.000	70000.000	-50.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1
CASE NUMBER	13	.5536	44000.000	70000.000	-50.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1
CASE NUMBER	14	.3298	0.000	90000.000	-50.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1
CASE NUMBER	15	.3458	5000.000	90000.000	-50.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1
CASE NUMBER	16	.3704	10000.000	90000.000	-50.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1

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DATA INPUT	CASE NUMBER	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	GROUP NUMBER
CASE NUMBER	17	.3989	15000.000	90000.000	-50.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1
CASE NUMBER	18	.4296	20000.000	90000.000	-50.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1
CASE NUMBER	19	.4608	25000.000	90000.000	-50.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1
CASE NUMBER	20	.4952	30000.000	90000.000	-50.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1
CASE NUMBER	21	.5440	35000.000	90000.000	-50.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1
CASE NUMBER	22	.5491	36000.000	90000.000	-50.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1
CASE NUMBER	23	.5499	37000.000	90000.000	-50.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1
CASE NUMBER	24	.5499	38000.000	90000.000	-50.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1
CASE NUMBER	25	.5549	39000.000	90000.000	-50.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1
CASE NUMBER	26	.3320	0.000	100000.000	-50.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1
CASE NUMBER	27	.3515	4404.762	100000.000	-50.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1
CASE NUMBER	28	.3814	10000.000	100000.000	-50.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1
CASE NUMBER	29	.4114	15000.000	100000.000	-50.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1
CASE NUMBER	30	.4406	20000.000	100000.000	-50.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1
CASE NUMBER	31	.4730	24940.476	100000.000	-50.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1
CASE NUMBER	32	.5128	30000.000	100000.000	-50.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1

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DATA INPUT	CASE NUMBER			GROUP NUMBER
	33			1
	.5499	35000.000100000.000	-50.000	0.000
CASE NUMBER	34			1
	.5510	36000.000100000.000	-50.000	0.000
CASE NUMBER	35			1
	.5561	37000.000100000.000	-50.000	0.000
CASE NUMBER	36			1
	.3453	0.000120000.000	-50.000	0.000
CASE NUMBER	37			1
	.3728	5000.000120000.000	-50.000	0.000
CASE NUMBER	38			1
	.4011	10000.000120000.000	-50.000	0.000
CASE NUMBER	39			1
	.4282	15000.000120000.000	-50.000	0.000
CASE NUMBER	40			1
	.4568	20000.000120000.000	-50.000	0.000
CASE NUMBER	41			1
	.4941	25000.000120000.000	-50.000	0.000
CASE NUMBER	42			1
	.5441	30000.000120000.000	-50.000	0.000
CASE NUMBER	43			1
	.5490	31000.000120000.000	-50.000	0.000
CASE NUMBER	44			1
	.5503	32000.000120000.000	-50.000	0.000
CASE NUMBER	45			1
	.3618	0.000145000.000	-50.000	0.000
CASE NUMBER	46			1
	.3895	5059.524145000.000	-50.000	0.000
CASE NUMBER	47			1
	.4200	10416.667145000.000	-50.000	0.000
CASE NUMBER	48			1
	.4440	14226.190145000.000	-50.000	0.000

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DATA INPUT	CASE NUMBER			GROUP NUMBER
	49			1
	.4850	20000.000145000.000	-50.000	0.000
CASE NUMBER	50			1
	.5252	25000.000145000.000	-50.000	0.000
CASE NUMBER	51			1
	.5353	26000.000145000.000	-50.000	0.000
CASE NUMBER	52			1
	.2986	0.00070000.000	0.000	0.000
CASE NUMBER	53			1
	.3170	5000.00070000.000	0.000	0.000
CASE NUMBER	54			1
	.3345	10000.00070000.000	0.000	0.000
CASE NUMBER	55			1
	.3545	14583.33370000.000	0.000	0.000
CASE NUMBER	56			1
	.3818	20000.00070000.000	0.000	0.000
CASE NUMBER	57			1
	.4091	25000.00070000.000	0.000	0.000
CASE NUMBER	58			1
	.4375	30178.57170000.000	0.000	0.000
CASE NUMBER	59			1
	.4667	35000.00070000.000	0.000	0.000
CASE NUMBER	60			1
	.4960	40000.00070000.000	0.000	0.000
CASE NUMBER	61			1
	.5029	41000.00070000.000	0.000	0.000
CASE NUMBER	62			1
	.5100	42000.00070000.000	0.000	0.000
CASE NUMBER	63			1
	.5183	43000.00070000.000	0.000	0.000
CASE NUMBER	64			1
	.3036	0.00090000.000	0.000	0.000



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DATA INPUT	CASE NUMBER				GROUP NUMBER
	65				1
	.3272	5000.000	90000.000	0.000	0.000
CASE NUMBER	66				1
	.3527	10000.000	90000.000	0.000	0.000
CASE NUMBER	67				1
	.3778	15000.000	90000.000	0.000	0.000
CASE NUMBER	68				1
	.4018	20000.000	90000.000	0.000	0.000
CASE NUMBER	69				1
	.4279	25000.000	90000.000	0.000	0.000
CASE NUMBER	70				1
	.4579	30000.000	90000.000	0.000	0.000
CASE NUMBER	71				1
	.4978	35000.000	90000.000	0.000	0.000
CASE NUMBER	72				1
	.5044	36000.000	90000.000	0.000	0.000
CASE NUMBER	73				1
	.5117	37000.000	90000.000	0.000	0.000
CASE NUMBER	74				1
	.3128	0.000	100000.000	0.000	0.000
CASE NUMBER	75				1
	.3360	5000.000	100000.000	0.000	0.000
CASE NUMBER	76				1
	.3615	10000.000	100000.000	0.000	0.000
CASE NUMBER	77				1
	.3844	15000.000	100000.000	0.000	0.000
CASE NUMBER	78				1
	.4101	20000.000	100000.000	0.000	0.000
CASE NUMBER	79				1
	.4384	25000.000	100000.000	0.000	0.000
CASE NUMBER	80				1
	.4719	30000.000	100000.000	0.000	0.000

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DATA INPUT	CASE NUMBER				GROUP NUMBER
	81				1
	.4802	31000.000	100000.000	0.000	0.000
CASE NUMBER	82				1
	.4891	32000.000	100000.000	0.000	0.000
CASE NUMBER	83				1
	.4979	33000.000	100000.000	0.000	0.000
CASE NUMBER	84				1
	.5061	34000.000	100000.000	0.000	0.000
CASE NUMBER	85				1
	.5132	35000.000	100000.000	0.000	0.000
CASE NUMBER	86				1
	.3260	119.048	120000.000	0.000	0.000
CASE NUMBER	87				1
	.3472	5000.000	120000.000	0.000	0.000
CASE NUMBER	88				1
	.3727	10000.000	120000.000	0.000	0.000
CASE NUMBER	89				1
	.3997	15000.000	120000.000	0.000	0.000
CASE NUMBER	90				1
	.4267	20000.000	120000.000	0.000	0.000
CASE NUMBER	91				1
	.4596	25000.000	120000.000	0.000	0.000
CASE NUMBER	92				1
	.4670	26000.000	120000.000	0.000	0.000
CASE NUMBER	93				1
	.4741	27000.000	120000.000	0.000	0.000
CASE NUMBER	94				1
	.4822	28000.000	120000.000	0.000	0.000
CASE NUMBER	95				1
	.4912	29000.000	120000.000	0.000	0.000
CASE NUMBER	96				1
	.5012	30000.000	120000.000	0.000	0.000

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DATA INPUT	GROUP NUMBER	1
CASE NUMBER 97	.3384 0.000145000.000 0.000 0.000	GROUP NUMBER 1
CASE NUMBER 98	.3623 5000.000145000.000 0.000 0.000	GROUP NUMBER 1
CASE NUMBER 99	.3900 10000.000145000.000 0.000 0.000	GROUP NUMBER 1
CASE NUMBER 100	.4171 15000.000145000.000 0.000 0.000	GROUP NUMBER 1
CASE NUMBER 101	.4491 20000.000145000.000 0.000 0.000	GROUP NUMBER 1
CASE NUMBER 102	.4558 21000.000145000.000 0.000 0.000	GROUP NUMBER 1
CASE NUMBER 103	.4634 22000.000145000.000 0.000 0.000	GROUP NUMBER 1
CASE NUMBER 104	.4712 23000.000145000.000 0.000 0.000	GROUP NUMBER 1
CASE NUMBER 105	.4791 24000.000145000.000 0.000 0.000	GROUP NUMBER 1
CASE NUMBER 106	.2671 0.000 70000.000 100.000 0.000	GROUP NUMBER 1
CASE NUMBER 107	.2861 5000.000 70000.000 100.000 0.000	GROUP NUMBER 1
CASE NUMBER 108	.3049 10000.000 70000.000 100.000 0.000	GROUP NUMBER 1
CASE NUMBER 109	.3231 15000.000 70000.000 100.000 0.000	GROUP NUMBER 1
CASE NUMBER 110	.3416 20000.000 70000.000 100.000 0.000	GROUP NUMBER 1
CASE NUMBER 111	.3635 25000.000 70000.000 100.000 0.000	GROUP NUMBER 1
CASE NUMBER 112	.3889 30000.000 70000.000 100.000 0.000	GROUP NUMBER 1

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DATA INPUT						GROUP NUMBER	
CASE NUMBER	113	.4186	35000.000	70000.000	100.000	0.000	1
CASE NUMBER	114	.4238	36000.000	70000.000	100.000	0.000	1
CASE NUMBER	115	.4294	37000.000	70000.000	100.000	0.000	1
CASE NUMBER	116	.4352	38000.000	70000.000	100.000	0.000	1
CASE NUMBER	117	.4411	39000.000	70000.000	100.000	0.000	1
CASE NUMBER	118	.4473	40000.000	70000.000	100.000	0.000	1
CASE NUMBER	119	.2784	0.000	90000.000	100.000	0.000	1
CASE NUMBER	120	.3000	5000.000	90000.000	100.000	0.000	1
CASE NUMBER	121	.3168	10000.000	90000.000	100.000	0.000	1
CASE NUMBER	122	.3363	15000.000	90000.000	100.000	0.000	1
CASE NUMBER	123	.3584	20000.000	90000.000	100.000	0.000	1
CASE NUMBER	124	.3838	25000.000	90000.000	100.000	0.000	1
CASE NUMBER	125	.4138	30000.000	90000.000	100.000	0.000	1
CASE NUMBER	126	.4205	31000.000	90000.000	100.000	0.000	1
CASE NUMBER	127	.4271	32000.000	90000.000	100.000	0.000	1
CASE NUMBER	128	.4338	33000.000	90000.000	100.000	0.000	1

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DATA INPUT	CASE NUMBER	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144
		.4410	34000.000	90000.000	100.000	0.000	GROUP NUMBER	1									
		.4488	35000.000	90000.000	100.000	0.000	GROUP NUMBER	1									
		.2847	190.476	100000.000	100.000	0.000	GROUP NUMBER	1									
		.3052	5000.000	100000.000	100.000	0.000	GROUP NUMBER	1									
		.3229	10000.000	100000.000	100.000	0.000	GROUP NUMBER	1									
		.3432	15000.000	100000.000	100.000	0.000	GROUP NUMBER	1									
		.3670	20000.000	100000.000	100.000	0.000	GROUP NUMBER	1									
		.3943	25000.000	100000.000	100.000	0.000	GROUP NUMBER	1									
		.4259	30000.000	100000.000	100.000	0.000	GROUP NUMBER	1									
		.4327	31000.000	100000.000	100.000	0.000	GROUP NUMBER	1									
		.4396	32000.000	100000.000	100.000	0.000	GROUP NUMBER	1									
		.2903	0.000	120000.000	100.000	0.000	GROUP NUMBER	1									
		.3126	5000.000	120000.000	100.000	0.000	GROUP NUMBER	1									
		.3345	10000.000	120000.000	100.000	0.000	GROUP NUMBER	1									
		.3575	15000.000	120000.000	100.000	0.000	GROUP NUMBER	1									
		.3845	20000.000	120000.000	100.000	0.000	GROUP NUMBER	1									

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DATA INPUT	CASE NUMBER	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160
		.4153	25000.000	120000.000	100.000	0.000	GROUP NUMBER	1									
		.4216	26000.000	120000.000	100.000	0.000	GROUP NUMBER	1									
		.4283	27000.000	120000.000	100.000	0.000	GROUP NUMBER	1									
		.3020	0.000	145000.000	100.000	0.000	GROUP NUMBER	1									
		.3250	5000.000	145000.000	100.000	0.000	GROUP NUMBER	1									
		.3496	10000.000	145000.000	100.000	0.000	GROUP NUMBER	1									
		.3760	15000.000	145000.000	100.000	0.000	GROUP NUMBER	1									
		.4065	20000.000	145000.000	100.000	0.000	GROUP NUMBER	1									
		.4126	21000.000	145000.000	100.000	0.000	GROUP NUMBER	1									
		.2520	0.000	70000.000	200.000	0.000	GROUP NUMBER	1									
		.2647	5000.000	70000.000	200.000	0.000	GROUP NUMBER	1									
		.2782	10000.000	70000.000	200.000	0.000	GROUP NUMBER	1									
		.2939	15000.000	70000.000	200.000	0.000	GROUP NUMBER	1									
		.3116	20000.000	70000.000	200.000	0.000	GROUP NUMBER	1									
		.3340	25000.000	70000.000	200.000	0.000	GROUP NUMBER	1									
		.3577	30000.000	70000.000	200.000	0.000	GROUP NUMBER	1									

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DATA INPUT	CASE NUMBER	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176
CASE NUMBER	161	.3858	35000.000	70000.000	200.000	0.000	GROUP NUMBER	1									
CASE NUMBER	162	.3908	36000.000	70000.000	200.000	0.000	GROUP NUMBER	1									
CASE NUMBER	163	.3962	37000.000	70000.000	200.000	0.000	GROUP NUMBER	1									
CASE NUMBER	164	.4019	38000.000	70000.000	200.000	0.000	GROUP NUMBER	1									
CASE NUMBER	165	.2585	0.000	90000.000	200.000	0.000	GROUP NUMBER	1									
CASE NUMBER	166	.2734	5000.000	90000.000	200.000	0.000	GROUP NUMBER	1									
CASE NUMBER	167	.2897	10000.000	90000.000	200.000	0.000	GROUP NUMBER	1									
CASE NUMBER	168	.3083	15000.000	90000.000	200.000	0.000	GROUP NUMBER	1									
CASE NUMBER	169	.3298	20000.000	90000.000	200.000	0.000	GROUP NUMBER	1									
CASE NUMBER	170	.3539	25000.000	90000.000	200.000	0.000	GROUP NUMBER	1									
CASE NUMBER	171	.3822	30000.000	90000.000	200.000	0.000	GROUP NUMBER	1									
CASE NUMBER	172	.3884	31000.000	90000.000	200.000	0.000	GROUP NUMBER	1									
CASE NUMBER	173	.3948	32000.000	90000.000	200.000	0.000	GROUP NUMBER	1									
CASE NUMBER	174	.2619	0.000	100000.000	200.000	0.000	GROUP NUMBER	1									
CASE NUMBER	175	.2783	5000.000	100000.000	200.000	0.000	GROUP NUMBER	1									
CASE NUMBER	176	.2956	10000.000	100000.000	200.000	0.000	GROUP NUMBER	1									

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DATA INPUT	CASE NUMBER	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192
CASE NUMBER	177	.3160	15000.000	100000.000	200.000	0.000	GROUP NUMBER	1									
CASE NUMBER	178	.3382	20000.000	100000.000	200.000	0.000	GROUP NUMBER	1									
CASE NUMBER	179	.3639	25000.000	100000.000	200.000	0.000	GROUP NUMBER	1									
CASE NUMBER	180	.3696	26000.000	100000.000	200.000	0.000	GROUP NUMBER	1									
CASE NUMBER	181	.3754	27000.000	100000.000	200.000	0.000	GROUP NUMBER	1									
CASE NUMBER	182	.3815	28000.000	100000.000	200.000	0.000	GROUP NUMBER	1									
CASE NUMBER	183	.3878	29000.000	100000.000	200.000	0.000	GROUP NUMBER	1									
CASE NUMBER	184	.2691	0.000	120000.000	200.000	0.000	GROUP NUMBER	1									
CASE NUMBER	185	.2887	5000.000	120000.000	200.000	0.000	GROUP NUMBER	1									
CASE NUMBER	186	.3083	10000.000	120000.000	200.000	0.000	GROUP NUMBER	1									
CASE NUMBER	187	.3304	15000.000	120000.000	200.000	0.000	GROUP NUMBER	1									
CASE NUMBER	188	.3550	20000.000	120000.000	200.000	0.000	GROUP NUMBER	1									
CASE NUMBER	189	.3605	21000.000	120000.000	200.000	0.000	GROUP NUMBER	1									
CASE NUMBER	190	.3661	22000.000	120000.000	200.000	0.000	GROUP NUMBER	1									
CASE NUMBER	191	.3719	23000.000	120000.000	200.000	0.000	GROUP NUMBER	1									
CASE NUMBER	192	.3779	24000.000	120000.000	200.000	0.000	GROUP NUMBER	1									

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DATA INPUT						GROUP NUMBER	1
CASE NUMBER	193						
	.2821	142.857145000.000	200.000	0.000		GROUP NUMBER	1
CASE NUMBER	194						
	.3033	5000.000145000.000	200.000	0.000		GROUP NUMBER	1
CASE NUMBER	195						
	.3236	10000.000145000.000	200.000	0.000		GROUP NUMBER	1
CASE NUMBER	196						
	.3477	15000.000145000.000	200.000	0.000		GROUP NUMBER	1
CASE NUMBER	197						
	.3529	16000.000145000.000	200.000	0.000		GROUP NUMBER	1
CASE NUMBER	198						
	.3584	17000.000145000.000	200.000	0.000		GROUP NUMBER	1
CASE NUMBER	199						
	.3641	18000.000145000.000	200.000	0.000		GROUP NUMBER	1
CASE NUMBER	200						
	.3057	0.000 70000.000	-50.000	18.000		GROUP NUMBER	2
CASE NUMBER	201						
	.3284	5000.000 70000.000	-50.000	18.000		GROUP NUMBER	2
CASE NUMBER	202						
	.3476	10000.000 70000.000	-50.000	18.000		GROUP NUMBER	2
CASE NUMBER	203						
	.3715	15535.714 70000.000	-50.000	18.000		GROUP NUMBER	2
CASE NUMBER	204						
	.3930	20000.000 70000.000	-50.000	18.000		GROUP NUMBER	2
CASE NUMBER	205						
	.4240	25119.048 70000.000	-50.000	18.000		GROUP NUMBER	2
CASE NUMBER	206						
	.4592	30000.000 70000.000	-50.000	18.000		GROUP NUMBER	2
CASE NUMBER	207						
	.4919	35000.000 70000.000	-50.000	18.000		GROUP NUMBER	2
CASE NUMBER	208						
	.5292	40000.000 70000.000	-50.000	18.000		GROUP NUMBER	2

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DATA INPUT						GROUP NUMBER	2
CASE NUMBER	209						
	.5419	41000.000 70000.000	-50.000	18.000		GROUP NUMBER	2
CASE NUMBER	210						
	.5488	42000.000 70000.000	-50.000	18.000		GROUP NUMBER	2
CASE NUMBER	211						
	.5498	43000.000 70000.000	-50.000	18.000		GROUP NUMBER	2
CASE NUMBER	212						
	.3094	0.000 90000.000	-50.000	18.000		GROUP NUMBER	2
CASE NUMBER	213						
	.3344	5000.000 90000.000	-50.000	18.000		GROUP NUMBER	2
CASE NUMBER	214						
	.3620	10000.000 90000.000	-50.000	18.000		GROUP NUMBER	2
CASE NUMBER	215						
	.3920	15000.000 90000.000	-50.000	18.000		GROUP NUMBER	2
CASE NUMBER	216						
	.4220	20000.000 90000.000	-50.000	18.000		GROUP NUMBER	2
CASE NUMBER	217						
	.4503	25000.000 90000.000	-50.000	18.000		GROUP NUMBER	2
CASE NUMBER	218						
	.4854	30000.000 90000.000	-50.000	18.000		GROUP NUMBER	2
CASE NUMBER	219						
	.5325	35000.000 90000.000	-50.000	18.000		GROUP NUMBER	2
CASE NUMBER	220						
	.5439	36000.000 90000.000	-50.000	18.000		GROUP NUMBER	2
CASE NUMBER	221						
	.5494	37000.000 90000.000	-50.000	18.000		GROUP NUMBER	2
CASE NUMBER	222						
	.5502	38000.000 90000.000	-50.000	18.000		GROUP NUMBER	2
CASE NUMBER	223						
	.3174	0.000100000.000	-50.000	18.000		GROUP NUMBER	2
CASE NUMBER	224						
	.3455	5000.000100000.000	-50.000	18.000		GROUP NUMBER	2

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DATA INPUT	CASE NUMBER				GROUP NUMBER
	225				2
	.3743	10000.000100000.000	-50.000	18.000	
CASE NUMBER	226				2
	.4040	15000.000100000.000	-50.000	18.000	
CASE NUMBER	227				2
	.4350	20476.190100000.000	-50.000	18.000	
CASE NUMBER	228				2
	.4650	25476.190100000.000	-50.000	18.000	
CASE NUMBER	229				2
	.5026	30000.000100000.000	-50.000	18.000	
CASE NUMBER	230				2
	.5495	35000.000100000.000	-50.000	18.000	
CASE NUMBER	231				2
	.5498	36000.000100000.000	-50.000	18.000	
CASE NUMBER	232				2
	.3364	0.000120000.000	-50.000	18.000	
CASE NUMBER	233				2
	.3547	5000.000120000.000	-50.000	18.000	
CASE NUMBER	234				2
	.3935	10000.000120000.000	-50.000	18.000	
CASE NUMBER	235				2
	.4180	14583.333120000.000	-50.000	18.000	
CASE NUMBER	236				2
	.4480	19464.286120000.000	-50.000	18.000	
CASE NUMBER	237				2
	.4892	25000.000120000.000	-50.000	18.000	
CASE NUMBER	238				2
	.4987	26000.000120000.000	-50.000	18.000	
CASE NUMBER	239				2
	.5068	27000.000120000.000	-50.000	18.000	
CASE NUMBER	240				2
	.5156	28000.000120000.000	-50.000	18.000	

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DATA INPUT	CASE NUMBER				GROUP NUMBER
	241				2
	.5257	29000.000120000.000	-50.000	18.000	
CASE NUMBER	242				2
	.5381	30000.000120000.000	-50.000	18.000	
CASE NUMBER	243				2
	.3532	0.000145000.000	-50.000	18.000	
CASE NUMBER	244				2
	.3807	5000.000145000.000	-50.000	18.000	
CASE NUMBER	245				2
	.4070	10000.000145000.000	-50.000	18.000	
CASE NUMBER	246				2
	.4382	15000.000145000.000	-50.000	18.000	
CASE NUMBER	247				2
	.4759	20000.000145000.000	-50.000	18.000	
CASE NUMBER	248				2
	.4854	21000.000145000.000	-50.000	18.000	
CASE NUMBER	249				2
	.4939	22000.000145000.000	-50.000	18.000	
CASE NUMBER	250				2
	.5022	23000.000145000.000	-50.000	18.000	
CASE NUMBER	251				2
	.5103	24000.000145000.000	-50.000	18.000	
CASE NUMBER	252				2
	.5189	25000.000145000.000	-50.000	18.000	
CASE NUMBER	253				2
	.2848	0.000 70000.000	0.000	18.000	
CASE NUMBER	254				2
	.3048	5000.000 70000.000	0.000	18.000	
CASE NUMBER	255				2
	.3275	10178.571 70000.000	0.000	18.000	
CASE NUMBER	256				2
	.3474	15000.000 70000.000	0.000	18.000	

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DATA INPUT	CASE NUMBER				GROUP NUMBER
	257				2
	.3734	20000.000	70000.000	0.000	18.000
CASE NUMBER	258				2
	.3985	25000.000	70000.000	0.000	18.000
CASE NUMBER	259				2
	.4261	30000.000	70000.000	0.000	18.000
CASE NUMBER	260				2
	.4579	35238.095	70000.000	0.000	18.000
CASE NUMBER	261				2
	.4896	40000.000	70000.000	0.000	18.000
CASE NUMBER	262				2
	.4965	41000.000	70000.000	0.000	18.000
CASE NUMBER	263				2
	.2948	0.000	90000.000	0.000	18.000
CASE NUMBER	264				2
	.2197	5000.000	90000.000	0.000	18.000
CASE NUMBER	265				2
	.1445	10000.000	90000.000	0.000	18.000
CASE NUMBER	266				2
	.3664	15000.000	90000.000	0.000	18.000
CASE NUMBER	267				2
	.3913	20000.000	90000.000	0.000	18.000
CASE NUMBER	268				2
	.4213	25000.000	90000.000	0.000	18.000
CASE NUMBER	269				2
	.4521	30000.000	90000.000	0.000	18.000
CASE NUMBER	270				2
	.4912	35000.000	90000.000	0.000	18.000
CASE NUMBER	271				2
	.4981	36000.000	90000.000	0.000	18.000
CASE NUMBER	272				2
	.3015	0.000	100000.000	0.000	18.000

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DATA INPUT	CASE NUMBER				GROUP NUMBER
	273				2
	.3269	5000.000	100000.000	0.000	18.000
CASE NUMBER	274				2
	.3505	10000.000	100000.000	0.000	18.000
CASE NUMBER	275				2
	.3736	15000.000	100000.000	0.000	18.000
CASE NUMBER	276				2
	.4019	20000.000	100000.000	0.000	18.000
CASE NUMBER	277				2
	.4310	25000.000	100000.000	0.000	18.000
CASE NUMBER	278				2
	.4652	30000.000	100000.000	0.000	18.000
CASE NUMBER	279				2
	.4732	31000.000	100000.000	0.000	18.000
CASE NUMBER	280				2
	.4816	32000.000	100000.000	0.000	18.000
CASE NUMBER	281				2
	.4901	33000.000	100000.000	0.000	18.000
CASE NUMBER	282				2
	.3116	0.000	120000.000	0.000	18.000
CASE NUMBER	283				2
	.3365	5000.000	120000.000	0.000	18.000
CASE NUMBER	284				2
	.3633	10000.000	120000.000	0.000	18.000
CASE NUMBER	285				2
	.3909	15000.000	120000.000	0.000	18.000
CASE NUMBER	286				2
	.4195	20000.000	120000.000	0.000	18.000
CASE NUMBER	287				2
	.4522	25000.000	120000.000	0.000	18.000
CASE NUMBER	288				2
	.4597	26000.000	120000.000	0.000	18.000

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DATA INPUT							
CASE NUMBER	289					GROUP NUMBER	2
	.4676	27000.000	120000.000	0.000	18.000		
CASE NUMBER	290					GROUP NUMBER	2
	.4760	28000.000	120000.000	0.000	18.000		
CASE NUMBER	291					GROUP NUMBER	2
	.3263	0.000	145000.000	0.000	18.000		
CASE NUMBER	292					GROUP NUMBER	2
	.3533	5000.000	145000.000	0.000	18.000		
CASE NUMBER	293					GROUP NUMBER	2
	.3810	10000.000	145000.000	0.000	18.000		
CASE NUMBER	294					GROUP NUMBER	2
	.4100	15000.000	145000.000	0.000	18.000		
CASE NUMBER	295					GROUP NUMBER	2
	.4418	20000.000	145000.000	0.000	18.000		
CASE NUMBER	296					GROUP NUMBER	2
	.4490	21000.000	145000.000	0.000	18.000		
CASE NUMBER	297					GROUP NUMBER	2
	.4565	22000.000	145000.000	0.000	18.000		
CASE NUMBER	298					GROUP NUMBER	2
	.2613	0.000	70000.000	100.000	18.000		
CASE NUMBER	299					GROUP NUMBER	2
	.2780	5000.000	70000.000	100.000	18.000		
CASE NUMBER	300					GROUP NUMBER	2
	.2955	10000.000	70000.000	100.000	18.000		
CASE NUMBER	301					GROUP NUMBER	2
	.3128	15000.000	70000.000	100.000	18.000		
CASE NUMBER	302					GROUP NUMBER	2
	.3331	20000.000	70000.000	100.000	18.000		
CASE NUMBER	303					GROUP NUMBER	2
	.3547	25000.000	70000.000	100.000	18.000		
CASE NUMBER	304					GROUP NUMBER	2
	.3806	30000.000	70000.000	100.000	18.000		

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DATA INPUT							
CASE NUMBER	305					GROUP NUMBER	2
	.4117	35000.000	70000.000	100.000	18.000		
CASE NUMBER	306					GROUP NUMBER	2
	.4171	36000.000	70000.000	100.000	18.000		
CASE NUMBER	307					GROUP NUMBER	2
	.4230	37000.000	70000.000	100.000	18.000		
CASE NUMBER	308					GROUP NUMBER	2
	.4292	38000.000	70000.000	100.000	18.000		
CASE NUMBER	309					GROUP NUMBER	2
	.4356	39000.000	70000.000	100.000	18.000		
CASE NUMBER	310					GROUP NUMBER	2
	.2711	0.000	90000.000	100.000	18.000		
CASE NUMBER	311					GROUP NUMBER	2
	.2892	5000.000	90000.000	100.000	18.000		
CASE NUMBER	312					GROUP NUMBER	2
	.3076	10000.000	90000.000	100.000	18.000		
CASE NUMBER	313					GROUP NUMBER	2
	.3278	15000.000	90000.000	100.000	18.000		
CASE NUMBER	314					GROUP NUMBER	2
	.3501	20000.000	90000.000	100.000	18.000		
CASE NUMBER	315					GROUP NUMBER	2
	.3763	25000.000	90000.000	100.000	18.000		
CASE NUMBER	316					GROUP NUMBER	2
	.4072	30000.000	90000.000	100.000	18.000		
CASE NUMBER	317					GROUP NUMBER	2
	.4139	31000.000	90000.000	100.000	18.000		
CASE NUMBER	318					GROUP NUMBER	2
	.4212	32000.000	90000.000	100.000	18.000		
CASE NUMBER	319					GROUP NUMBER	2
	.4284	33000.000	90000.000	100.000	18.000		
CASE NUMBER	320					GROUP NUMBER	2
	.2745	0.000	100000.000	100.000	18.000		



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DATA INPUT	CASE NUMBER	321	2955	5000.000100000.000	100.000	18.000	GROUP NUMBER	2
CASE NUMBER	322	.3141	10000.000100000.000	100.000	18.000	GROUP NUMBER	2	
CASE NUMBER	323	.3351	15000.000100000.000	100.000	18.000	GROUP NUMBER	2	
CASE NUMBER	324	.3530	20000.000100000.000	100.000	18.000	GROUP NUMBER	2	
CASE NUMBER	325	.3874	25000.000100000.000	100.000	18.000	GROUP NUMBER	2	
CASE NUMBER	326	.3936	26000.000100000.000	100.000	18.000	GROUP NUMBER	2	
CASE NUMBER	327	.4000	27000.000100000.000	100.000	18.000	GROUP NUMBER	2	
CASE NUMBER	328	.4066	28000.000100000.000	100.000	18.000	GROUP NUMBER	2	
CASE NUMBER	329	.4135	29000.000100000.000	100.000	18.000	GROUP NUMBER	2	
CASE NUMBER	330	.4205	30000.000100000.000	100.000	18.000	GROUP NUMBER	2	
CASE NUMBER	331	.2825	0.000120000.000	100.000	18.000	GROUP NUMBER	2	
CASE NUMBER	332	.3044	5000.000120000.000	100.000	18.000	GROUP NUMBER	2	
CASE NUMBER	333	.3265	10000.000120000.000	100.000	18.000	GROUP NUMBER	2	
CASE NUMBER	334	.3499	15000.000120000.000	100.000	18.000	GROUP NUMBER	2	
CASE NUMBER	335	.3773	20000.000120000.000	100.000	18.000	GROUP NUMBER	2	
CASE NUMBER	336	.3833	21000.000120000.000	100.000	18.000	GROUP NUMBER	2	

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DATA INPUT	CASE NUMBER	337	.3895	22000.000120000.000	100.000	18.000	GROUP NUMBER	2
CASE NUMBER	338	.3959	23000.000120000.000	100.000	18.000	GROUP NUMBER	2	
CASE NUMBER	339	.4026	24000.000120000.000	100.000	18.000	GROUP NUMBER	2	
CASE NUMBER	340	.4095	25000.000120000.000	100.000	18.000	GROUP NUMBER	2	
CASE NUMBER	341	.2929	0.000145000.000	100.000	18.000	GROUP NUMBER	2	
CASE NUMBER	342	.3172	5000.000145000.000	100.000	18.000	GROUP NUMBER	2	
CASE NUMBER	343	.3424	10000.000145000.000	100.000	18.000	GROUP NUMBER	2	
CASE NUMBER	344	.3691	15000.000145000.000	100.000	18.000	GROUP NUMBER	2	
CASE NUMBER	345	.3750	16000.000145000.000	100.000	18.000	GROUP NUMBER	2	
CASE NUMBER	346	.3811	17000.000145000.000	100.000	18.000	GROUP NUMBER	2	
CASE NUMBER	347	.3873	18000.000145000.000	100.000	18.000	GROUP NUMBER	2	
CASE NUMBER	348	.3937	19000.000145000.000	100.000	18.000	GROUP NUMBER	2	
CASE NUMBER	349	.2456	0.00070000.000	200.000	18.000	GROUP NUMBER	2	
CASE NUMBER	350	.2555	5000.00070000.000	200.000	18.000	GROUP NUMBER	2	
CASE NUMBER	351	.2705	10000.00070000.000	200.000	18.000	GROUP NUMBER	2	
CASE NUMBER	352	.2863	15000.00070000.000	200.000	18.000	GROUP NUMBER	2	

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DATA INPUT	CASE NUMBER	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368
		.3042	20000.000	70000.000	200.000	18.000	GROUP NUMBER	2									
		.3253	25000.000	70000.000	200.000	18.000	GROUP NUMBER	2									
		.3506	30000.000	70000.000	200.000	18.000	GROUP NUMBER	2									
		.3797	35000.000	70000.000	200.000	18.000	GROUP NUMBER	2									
		.3849	36000.000	70000.000	200.000	18.000	GROUP NUMBER	2									
		.3905	37000.000	70000.000	200.000	18.000	GROUP NUMBER	2									
		.2521	0.000	90000.000	200.000	18.000	GROUP NUMBER	2									
		.2651	5000.000	90000.000	200.000	18.000	GROUP NUMBER	2									
		.2819	10000.000	90000.000	200.000	18.000	GROUP NUMBER	2									
		.3009	15000.000	90000.000	200.000	18.000	GROUP NUMBER	2									
		.3228	20000.000	90000.000	200.000	18.000	GROUP NUMBER	2									
		.3472	25000.000	90000.000	200.000	18.000	GROUP NUMBER	2									
		.3761	30000.000	90000.000	200.000	18.000	GROUP NUMBER	2									
		.3824	31000.000	90000.000	200.000	18.000	GROUP NUMBER	2									
		.2557	0.000	100000.000	200.000	18.000	GROUP NUMBER	2									
		.2701	5000.000	100000.000	200.000	18.000	GROUP NUMBER	2									

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DATA INPUT	CASE NUMBER	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384
		.2881	10000.000	100000.000	200.000	18.000	GROUP NUMBER	2									
		.3087	15000.000	100000.000	200.000	18.000	GROUP NUMBER	2									
		.3323	20000.000	100000.000	200.000	18.000	GROUP NUMBER	2									
		.3576	25000.000	100000.000	200.000	18.000	GROUP NUMBER	2									
		.3634	26000.000	100000.000	200.000	18.000	GROUP NUMBER	2									
		.3694	27000.000	100000.000	200.000	18.000	GROUP NUMBER	2									
		.3756	28000.000	100000.000	200.000	18.000	GROUP NUMBER	2									
		.2634	0.000	120000.000	200.000	18.000	GROUP NUMBER	2									
		.2807	5000.000	120000.000	200.000	18.000	GROUP NUMBER	2									
		.3012	10000.000	120000.000	200.000	18.000	GROUP NUMBER	2									
		.3238	15000.000	120000.000	200.000	18.000	GROUP NUMBER	2									
		.3490	20000.000	120000.000	200.000	18.000	GROUP NUMBER	2									
		.3545	21000.000	120000.000	200.000	18.000	GROUP NUMBER	2									
		.3602	22000.000	120000.000	200.000	18.000	GROUP NUMBER	2									
		.2737	0.000	145000.000	200.000	18.000	GROUP NUMBER	2									
		.2967	5000.000	145000.000	200.000	18.000	GROUP NUMBER	2									

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DATA INPUT	CASE NUMBER	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416
		10000.000145000.000	15000.000145000.000	18000.000145000.000	0.000 70000.000	5000.000 70000.000	10000.000 70000.000	15476.150 70000.000	20000.000 70000.000	25000.000 70000.000	30000.000 70000.000	35000.000 70000.000	40000.000 70000.000	41000.000 70000.000	42000.000 70000.000	0.000 90000.000	5000.000 90000.000	10000.000 90000.000	15000.000 90000.000	20000.000 90000.000	25000.000 90000.000	30000.000 90000.000	35000.000 90000.000	36000.000 90000.000	0.000100000.000	5000.000100000.000	10000.000100000.000	15000.000100000.000	19761.905100000.000	25000.000100000.000	30000.000100000.000	31000.000100000.000	32000.000100000.000
		200.000	200.000	200.000	-50.000	-50.000	-50.000	-50.000	-50.000	-50.000	-50.000	-50.000	-50.000	-50.000	-50.000	-50.000	-50.000	-50.000	-50.000	-50.000	-50.000	-50.000	-50.000	-50.000	-50.000	-50.000	-50.000	-50.000	-50.000	-50.000	-50.000	-50.000	
		18.000	18.000	18.000	36.000	36.000	36.000	36.000	36.000	36.000	36.000	36.000	36.000	36.000	36.000	36.000	36.000	36.000	36.000	36.000	36.000	36.000	36.000	36.000	36.000	36.000	36.000	36.000	36.000	36.000	36.000	36.000	
GROUP NUMBER		2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	

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DATA INPUT	CASE NUMBER	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416
		10000.000 90000.000	15000.000 90000.000	20000.000 90000.000	25000.000 90000.000	30000.000 90000.000	35000.000 90000.000	36000.000 90000.000	0.000100000.000	5000.000100000.000	10000.000100000.000	15000.000100000.000	19761.905100000.000	25000.000100000.000	30000.000100000.000	31000.000100000.000	32000.000100000.000
		-50.000	-50.000	-50.000	-50.000	-50.000	-50.000	-50.000	-50.000	-50.000	-50.000	-50.000	-50.000	-50.000	-50.000	-50.000	-50.000
		36.000	36.000	36.000	36.000	36.000	36.000	36.000	36.000	36.000	36.000	36.000	36.000	36.000	36.000	36.000	36.000
GROUP NUMBER		2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2

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DATA INPUT	CASE NUMBER				GROUP NUMBER
	417				2
	.5232	33000.000100000.000	-50.000	36.000	
CASE NUMBER	418				2
	.5332	34000.000100000.000	-50.000	36.000	
CASE NUMBER	419				2
	.3263	0.000120000.000	-50.000	36.000	
CASE NUMBER	420				2
	.3538	5000.000120000.000	-50.000	36.000	
CASE NUMBER	421				2
	.3820	10000.000120000.000	-50.000	36.000	
CASE NUMBER	422				2
	.4092	15000.000120000.000	-50.000	36.000	
CASE NUMBER	423				2
	.4405	20000.000120000.000	-50.000	36.000	
CASE NUMBER	424				2
	.4796	25000.000120000.000	-50.000	36.000	
CASE NUMBER	425				2
	.4892	26000.000120000.000	-50.000	36.000	
CASE NUMBER	426				2
	.4992	27000.000120000.000	-50.000	36.000	
CASE NUMBER	427				2
	.5081	28000.000120000.000	-50.000	36.000	
CASE NUMBER	428				2
	.5176	29000.000120000.000	-50.000	36.000	
CASE NUMBER	429				2
	.3393	0.000145000.000	-50.000	36.000	
CASE NUMBER	430				2
	.3693	5000.000145000.000	-50.000	36.000	
CASE NUMBER	431				2
	.3997	10000.000145000.000	-50.000	36.000	
CASE NUMBER	432				2
	.4302	15000.000145000.000	-50.000	36.000	

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DATA INPUT	CASE NUMBER				GROUP NUMBER
	433				2
	.4671	20000.000145000.000	-50.000	36.000	
CASE NUMBER	434				2
	.4761	21000.000145000.000	-50.000	36.000	
CASE NUMBER	435				2
	.4856	22000.000145000.000	-50.000	36.000	
CASE NUMBER	436				2
	.2747	0.000 70000.000	0.000	36.000	
CASE NUMBER	437				2
	.2919	5000.000 70000.000	0.000	36.000	
CASE NUMBER	438				2
	.3168	10000.000 70000.000	0.000	36.000	
CASE NUMBER	439				2
	.3400	15000.000 70000.000	0.000	36.000	
CASE NUMBER	440				2
	.3632	20000.000 70000.000	0.000	36.000	
CASE NUMBER	441				2
	.3879	24857.143 70000.000	0.000	36.000	
CASE NUMBER	442				2
	.4187	30000.000 70000.000	0.000	36.000	
CASE NUMBER	443				2
	.4523	35000.000 70000.000	0.000	36.000	
CASE NUMBER	444				2
	.4580	36000.000 70000.000	0.000	36.000	
CASE NUMBER	445				2
	.4641	37000.000 70000.000	0.000	36.000	
CASE NUMBER	446				2
	.4704	38000.000 70000.000	0.000	36.000	
CASE NUMBER	447				2
	.4770	39000.000 70000.000	0.000	36.000	
CASE NUMBER	448				2
	.4838	40000.000 70000.000	0.000	36.000	

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DATA INPUT	CASE NUMBER				GROUP NUMBER
	449				2
	.2884	0.000	90000.000	0.000	36.000
CASE NUMBER	450				2
	.3109	5000.000	90000.000	0.000	36.000
CASE NUMBER	451				2
	.3341	10000.000	90000.000	0.000	36.000
CASE NUMBER	452				2
	.3559	15000.000	90000.000	0.000	36.000
CASE NUMBER	453				2
	.3820	20000.000	90000.000	0.000	36.000
CASE NUMBER	454				2
	.4123	25000.000	90000.000	0.000	36.000
CASE NUMBER	455				2
	.4452	30000.000	90000.000	0.000	36.000
CASE NUMBER	456				2
	.4526	31000.000	90000.000	0.000	36.000
CASE NUMBER	457				2
	.4601	32000.000	90000.000	0.000	36.000
CASE NUMBER	458				2
	.4685	33000.000	90000.000	0.000	36.000
CASE NUMBER	459				2
	.4770	34000.000	90000.000	0.000	36.000
CASE NUMBER	460				2
	.4855	35000.000	90000.000	0.000	36.000
CASE NUMBER	461				2
	.2842	0.000	100000.000	0.000	36.000
CASE NUMBER	462				2
	.3178	5000.000	100000.000	0.000	36.000
CASE NUMBER	463				2
	.3399	10000.000	100000.000	0.000	36.000
CASE NUMBER	464				2
	.3645	15000.000	100000.000	0.000	36.000

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DATA INPUT	CASE NUMBER				GROUP NUMBER
	465				2
	.3923	20000.000	100000.000	0.000	36.000
CASE NUMBER	466				2
	.4233	25000.000	100000.000	0.000	36.000
CASE NUMBER	467				2
	.4587	30000.000	100000.000	0.000	36.000
CASE NUMBER	468				2
	.4668	31000.000	100000.000	0.000	36.000
CASE NUMBER	469				2
	.4754	32000.000	100000.000	0.000	36.000
CASE NUMBER	470				2
	.3026	0.000	120000.000	0.000	36.000
CASE NUMBER	471				2
	.3287	5000.000	120000.000	0.000	36.000
CASE NUMBER	472				2
	.3546	10000.000	120000.000	0.000	36.000
CASE NUMBER	473				2
	.3817	15000.000	120000.000	0.000	36.000
CASE NUMBER	474				2
	.4125	20000.000	120000.000	0.000	36.000
CASE NUMBER	475				2
	.4456	25000.000	120000.000	0.000	36.000
CASE NUMBER	476				2
	.4532	26000.000	120000.000	0.000	36.000
CASE NUMBER	477				2
	.3163	0.000	145000.000	0.000	36.000
CASE NUMBER	478				2
	.3437	5000.000	145000.000	0.000	36.000
CASE NUMBER	479				2
	.3730	10000.000	145000.000	0.000	36.000
CASE NUMBER	480				2
	.4032	15000.000	145000.000	0.000	36.000

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DATA INPUT									
CASE NUMBER	481						GROUP NUMBER	2	
	.4091	16000.000	145000.000	0.000	36.000				
CASE NUMBER	482						GROUP NUMBER	2	
	.4152	17000.000	145000.000	0.000	36.000				
CASE NUMBER	483						GROUP NUMBER	2	
	.4216	18000.000	145000.000	0.000	36.000				
CASE NUMBER	484						GROUP NUMBER	2	
	.4281	19000.000	145000.000	0.000	36.000				
CASE NUMBER	485						GROUP NUMBER	2	
	.4351	20000.000	145000.000	0.000	36.000				
CASE NUMBER	486						GROUP NUMBER	2	
	.2542	0.000	70000.000	100.000	36.000				
CASE NUMBER	487						GROUP NUMBER	2	
	.2690	5000.000	70000.000	100.000	36.000				
CASE NUMBER	488						GROUP NUMBER	2	
	.2848	10000.000	70000.000	100.000	36.000				
CASE NUMBER	489						GROUP NUMBER	2	
	.3036	15000.000	70000.000	100.000	36.000				
CASE NUMBER	490						GROUP NUMBER	2	
	.3241	20000.000	70000.000	100.000	36.000				
CASE NUMBER	491						GROUP NUMBER	2	
	.3464	25000.000	70000.000	100.000	36.000				
CASE NUMBER	492						GROUP NUMBER	2	
	.3727	30000.000	70000.000	100.000	36.000				
CASE NUMBER	493						GROUP NUMBER	2	
	.4046	35000.000	70000.000	100.000	36.000				
CASE NUMBER	494						GROUP NUMBER	2	
	.4104	36000.000	70000.000	100.000	36.000				
CASE NUMBER	495						GROUP NUMBER	2	
	.4166	37000.000	70000.000	100.000	36.000				
CASE NUMBER	496						GROUP NUMBER	2	
	.4232	38000.000	70000.000	100.000	36.000				

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DATA INPUT									
CASE NUMBER	497						GROUP NUMBER	2	
	.2623	0.000	90000.000	100.000	36.000				
CASE NUMBER	498						GROUP NUMBER	2	
	.2795	5000.000	90000.000	100.000	36.000				
CASE NUMBER	499						GROUP NUMBER	2	
	.2983	10000.000	90000.000	100.000	36.000				
CASE NUMBER	500						GROUP NUMBER	2	
	.3197	15000.000	90000.000	100.000	36.000				
CASE NUMBER	501						GROUP NUMBER	2	
	.3423	20000.000	90000.000	100.000	36.000				
CASE NUMBER	502						GROUP NUMBER	2	
	.3687	25000.000	90000.000	100.000	36.000				
CASE NUMBER	503						GROUP NUMBER	2	
	.4006	30000.000	90000.000	100.000	36.000				
CASE NUMBER	504						GROUP NUMBER	2	
	.4078	31000.000	90000.000	100.000	36.000				
CASE NUMBER	505						GROUP NUMBER	2	
	.4152	32000.000	90000.000	100.000	36.000				
CASE NUMBER	506						GROUP NUMBER	2	
	.2667	0.000	100000.000	100.000	36.000				
CASE NUMBER	507						GROUP NUMBER	2	
	.2846	5000.000	100000.000	100.000	36.000				
CASE NUMBER	508						GROUP NUMBER	2	
	.3053	10000.000	100000.000	100.000	36.000				
CASE NUMBER	509						GROUP NUMBER	2	
	.3274	15000.000	100000.000	100.000	36.000				
CASE NUMBER	510						GROUP NUMBER	2	
	.3515	20000.000	100000.000	100.000	36.000				
CASE NUMBER	511						GROUP NUMBER	2	
	.3802	25000.000	100000.000	100.000	36.000				
CASE NUMBER	512						GROUP NUMBER	2	
	.3865	26000.000	100000.000	100.000	36.000				

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DATA INPUT	CASE NUMBER	513	514	515	516	517	518	519	520	521	522	523	524	525	526	527	528
		.3931	27000.000100000.000	100.000	36.000	GROUP NUMBER	2										
		.4000	28000.000100000.000	100.000	36.000	GROUP NUMBER	2										
		.2754	0.000120000.000	100.000	36.000	GROUP NUMBER	2										
		.2953	5000.000120000.000	100.000	36.000	GROUP NUMBER	2										
		.3191	10000.000120000.000	100.000	36.000	GROUP NUMBER	2										
		.3429	15000.000120000.000	100.000	36.000	GROUP NUMBER	2										
		.3704	20000.000120000.000	100.000	36.000	GROUP NUMBER	2										
		.3764	21000.000120000.000	100.000	36.000	GROUP NUMBER	2										
		.3826	22000.000120000.000	100.000	36.000	GROUP NUMBER	2										
		.3891	23000.000120000.000	100.000	36.000	GROUP NUMBER	2										
		.2868	0.000145000.000	100.000	36.000	GROUP NUMBER	2										
		.3098	5000.000145000.000	100.000	36.000	GROUP NUMBER	2										
		.3356	10000.000145000.000	100.000	36.000	GROUP NUMBER	2										
		.3529	15000.000145000.000	100.000	36.000	GROUP NUMBER	2										
		.3588	16000.000145000.000	100.000	36.000	GROUP NUMBER	2										
		.2363	0.000 70000.000	200.000	36.000	GROUP NUMBER	2										

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DATA INPUT	CASE NUMBER	529	530	531	532	533	534	535	536	537	538	539	540	541	542	543	544
		.2471	5000.000 70000.000	200.000	36.000	GROUP NUMBER	2										
		.2622	10000.000 70000.000	200.000	36.000	GROUP NUMBER	2										
		.2788	15000.000 70000.000	200.000	36.000	GROUP NUMBER	2										
		.2973	20000.000 70000.000	200.000	36.000	GROUP NUMBER	2										
		.3187	25000.000 70000.000	200.000	36.000	GROUP NUMBER	2										
		.3438	30000.000 70000.000	200.000	36.000	GROUP NUMBER	2										
		.3733	35000.000 70000.000	200.000	36.000	GROUP NUMBER	2										
		.3787	36000.000 70000.000	200.000	36.000	GROUP NUMBER	2										
		.2439	0.000 90000.000	200.000	36.000	GROUP NUMBER	2										
		.2572	5000.000 90000.000	200.000	36.000	GROUP NUMBER	2										
		.2743	10000.000 90000.000	200.000	36.000	GROUP NUMBER	2										
		.2939	15000.000 90000.000	200.000	36.000	GROUP NUMBER	2										
		.3165	20000.000 90000.000	200.000	36.000	GROUP NUMBER	2										
		.3410	25000.000 90000.000	200.000	36.000	GROUP NUMBER	2										
		.3464	26000.000 90000.000	200.000	36.000	GROUP NUMBER	2										
		.3519	27000.000 90000.000	200.000	36.000	GROUP NUMBER	2										

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DATA INPUT	CASE NUMBER	545	546	547	548	549	550	551	552	553	554	555	556	557	558	559	560	GROUP NUMBER	2
		.3577 28000.000 90000.000	200.000	36.000															
		.3638 29000.000 90000.000	200.000	36.000															
		.2479 0.000100000.000	200.000	36.000															
		.2625 5000.000100000.000	200.000	36.000															
		.2809 10000.000100000.000	200.000	36.000															
		.3018 15000.000100000.000	200.000	36.000															
		.3254 20000.000100000.000	200.000	36.000															
		.3517 25000.000100000.000	200.000	36.000															
		.3575 28000.000100000.000	200.000	36.000															
		.2564 0.000120000.000	200.000	36.000															
		.2736 5000.000120000.000	200.000	36.000															
		.2943 10000.000120000.000	200.000	36.000															
		.3178 15000.000120000.000	200.000	36.000															
		.3227 16000.000120000.000	200.000	36.000															
		.3278 17000.000120000.000	200.000	36.000															
		.3328 18000.000120000.000	200.000	36.000															

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DATA INPUT	CASE NUMBER	561	562	563	564	565	566	567	568	569	570	571	572	573	574	575	576	GROUP NUMBER	2
		.3379 19000.000120000.000	200.000	36.000															
		.3432 20000.000120000.000	200.000	36.000															
		.2675 0.000145000.000	200.000	36.000															
		.2875 5000.000145000.000	200.000	36.000															
		.3115 10000.000145000.000	200.000	36.000															
		.3162 11000.000145000.000	200.000	36.000															
		.3211 12000.000145000.000	200.000	36.000															
		.3260 13000.000145000.000	200.000	36.000															
		.3156 0.000 70000.000	-50.000	-18.000															
		.3465 5416.667 70000.000	-50.000	-18.000															
		.3750 10357.143 70000.000	-50.000	-18.000															
		.3965 15000.000 70000.000	-50.000	-18.000															
		.4116 20000.000 70000.000	-50.000	-18.000															
		.4374 25000.000 70000.000	-50.000	-18.000															
		.4734 30000.000 70000.000	-50.000	-18.000															
		.5211 35000.000 70000.000	-50.000	-18.000															



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DATA INPUT	CASE NUMBER	577	578	579	580	581	582	583	584	585	586	587	588	589	590	591	592
		.5474	40000.000	70000.000	-50.000	-18.000	GROUP NUMBER	1									
		.5486	41000.000	70000.000	-50.000	-18.000	GROUP NUMBER	1									
		.5502	42000.000	70000.000	-50.000	-18.000	GROUP NUMBER	1									
		.5505	43000.000	70000.000	-50.000	-18.000	GROUP NUMBER	1									
		.5543	44000.000	70000.000	-50.000	-18.000	GROUP NUMBER	1									
		.5558	45000.000	70000.000	-50.000	-18.000	GROUP NUMBER	1									
		.3165	0.000	90000.000	-50.000	-18.000	GROUP NUMBER	1									
		.3504	5000.000	90000.000	-50.000	-18.000	GROUP NUMBER	1									
		.3818	10000.000	90000.000	-50.000	-18.000	GROUP NUMBER	1									
		.4050	15000.000	90000.000	-50.000	-18.000	GROUP NUMBER	1									
		.4356	20000.000	90000.000	-50.000	-18.000	GROUP NUMBER	1									
		.4701	25000.000	90000.000	-50.000	-18.000	GROUP NUMBER	1									
		.5100	30000.000	90000.000	-50.000	-18.000	GROUP NUMBER	1									
		.5482	35000.000	90000.000	-50.000	-18.000	GROUP NUMBER	1									
		.5495	36000.000	90000.000	-50.000	-18.000	GROUP NUMBER	1									
		.5500	37000.000	90000.000	-50.000	-18.000	GROUP NUMBER	1									

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DATA INPUT	CASE NUMBER	593	594	595	596	597	598	599	600	601	602	603	604	605	606	607	608
		.5507	38000.000	90000.000	-50.000	-18.000	GROUP NUMBER	1									
		.5555	39000.000	90000.000	-50.000	-18.000	GROUP NUMBER	1									
		.5611	40000.000	90000.000	-50.000	-18.000	GROUP NUMBER	1									
		.3200	0.000	100000.000	-50.000	-18.000	GROUP NUMBER	1									
		.3545	5000.000	100000.000	-50.000	-18.000	GROUP NUMBER	1									
		.3882	10000.000	100000.000	-50.000	-18.000	GROUP NUMBER	1									
		.4170	15000.000	100000.000	-50.000	-18.000	GROUP NUMBER	1									
		.4427	20000.000	100000.000	-50.000	-18.000	GROUP NUMBER	1									
		.4808	25000.000	100000.000	-50.000	-18.000	GROUP NUMBER	1									
		.5217	30000.000	100000.000	-50.000	-18.000	GROUP NUMBER	1									
		.5500	35000.000	100000.000	-50.000	-18.000	GROUP NUMBER	1									
		.5509	36000.000	100000.000	-50.000	-18.000	GROUP NUMBER	1									
		.5566	37000.000	100000.000	-50.000	-18.000	GROUP NUMBER	1									
		.5629	38000.000	100000.000	-50.000	-18.000	GROUP NUMBER	1									
		.3346	0.000	120000.000	-50.000	-18.000	GROUP NUMBER	1									
		.3707	5000.000	120000.000	-50.000	-18.000	GROUP NUMBER	1									

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DATA INPUT	CASE NUMBER				GROUP NUMBER
	609				1
	.4078	10000.000120000.000	-50.000	-18.000	1
CASE NUMBER	610				1
	.4378	15000.000120000.000	-50.000	-18.000	1
CASE NUMBER	611				1
	.4672	20000.000120000.000	-50.000	-18.000	1
CASE NUMBER	612				1
	.5026	25000.000120000.000	-50.000	-18.000	1
CASE NUMBER	613				1
	.5488	30000.000120000.000	-50.000	-18.000	1
CASE NUMBER	614				1
	.5488	31000.000120000.000	-50.000	-18.000	1
CASE NUMBER	615				1
	.5507	32000.000120000.000	-50.000	-18.000	1
CASE NUMBER	616				1
	.5547	33000.000120000.000	-50.000	-18.000	1
CASE NUMBER	617				1
	.5608	34000.000120000.000	-50.000	-18.000	1
CASE NUMBER	618				1
	.3455	0.000145000.000	-50.000	-18.000	1
CASE NUMBER	619				1
	.3857	5000.000145000.000	-50.000	-18.000	1
CASE NUMBER	620				1
	.4254	10000.000145000.000	-50.000	-18.000	1
CASE NUMBER	621				1
	.4555	14523.810145000.000	-50.000	-18.000	1
CASE NUMBER	622				1
	.4925	20000.000145000.000	-50.000	-18.000	1
CASE NUMBER	623				1
	.5342	25000.000145000.000	-50.000	-18.000	1
CASE NUMBER	624				1
	.5438	26000.000145000.000	-50.000	-18.000	1

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DATA INPUT	CASE NUMBER				GROUP NUMBER
	625				1
	.5494	27000.000145000.000	-50.000	-18.000	1
CASE NUMBER	626				1
	.5501	28000.000145000.000	-50.000	-18.000	1
CASE NUMBER	627				1
	.2925	0.000 70000.000	0.000	-18.000	1
CASE NUMBER	628				1
	.3190	5000.000 70000.000	0.000	-18.000	1
CASE NUMBER	629				1
	.3473	10000.000 70000.000	0.000	-18.000	1
CASE NUMBER	630				1
	.3665	14464.286 70000.000	0.000	-18.000	1
CASE NUMBER	631				1
	.3885	20000.000 70000.000	0.000	-18.000	1
CASE NUMBER	632				1
	.4140	25238.095 70000.000	0.000	-18.000	1
CASE NUMBER	633				1
	.4415	30000.000 70000.000	0.000	-18.000	1
CASE NUMBER	634				1
	.4721	35000.000 70000.000	0.000	-18.000	1
CASE NUMBER	635				1
	.5066	40000.000 70000.000	0.000	-18.000	1
CASE NUMBER	636				1
	.5159	41000.000 70000.000	0.000	-18.000	1
CASE NUMBER	637				1
	.5240	42000.000 70000.000	0.000	-18.000	1
CASE NUMBER	638				1
	.5315	43000.000 70000.000	0.000	-18.000	1
CASE NUMBER	639				1
	.5385	44000.000 70000.000	0.000	-18.000	1
CASE NUMBER	640				1
	.3005	0.000 90000.000	0.000	-18.000	1

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DATA INPUT	CASE NUMBER	641	5000.000	90000.000	0.000	-18.000	GROUP NUMBER	1
CASE NUMBER	642	.3310	10000.000	90000.000	0.000	-18.000	GROUP NUMBER	1
CASE NUMBER	643	.3601	15000.000	90000.000	0.000	-18.000	GROUP NUMBER	1
CASE NUMBER	644	.3867	20000.000	90000.000	0.000	-18.000	GROUP NUMBER	1
CASE NUMBER	645	.4112	25000.000	90000.000	0.000	-18.000	GROUP NUMBER	1
CASE NUMBER	646	.4354	30000.000	90000.000	0.000	-18.000	GROUP NUMBER	1
CASE NUMBER	647	.4665	35000.000	90000.000	0.000	-18.000	GROUP NUMBER	1
CASE NUMBER	648	.5086	40000.000	90000.000	0.000	-18.000	GROUP NUMBER	1
CASE NUMBER	649	.5182	45000.000	90000.000	0.000	-18.000	GROUP NUMBER	1
CASE NUMBER	650	.5259	50000.000	90000.000	0.000	-18.000	GROUP NUMBER	1
CASE NUMBER	651	.5328	55000.000	90000.000	0.000	-18.000	GROUP NUMBER	1
CASE NUMBER	652	.5402	60000.000	90000.000	0.000	-18.000	GROUP NUMBER	1
CASE NUMBER	653	.3082	0.000	100000.000	0.000	-18.000	GROUP NUMBER	1
CASE NUMBER	654	.3393	5000.000	100000.000	0.000	-18.000	GROUP NUMBER	1
CASE NUMBER	655	.3689	10000.000	100000.000	0.000	-18.000	GROUP NUMBER	1
CASE NUMBER	656	.3959	15000.000	100000.000	0.000	-18.000	GROUP NUMBER	1
CASE NUMBER	657	.4176	20000.000	100000.000	0.000	-18.000	GROUP NUMBER	1

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DATA INPUT	CASE NUMBER	657	25000.000	100000.000	0.000	-18.000	GROUP NUMBER	1
CASE NUMBER	658	.4797	30000.000	100000.000	0.000	-18.000	GROUP NUMBER	1
CASE NUMBER	659	.5273	35000.000	100000.000	0.000	-18.000	GROUP NUMBER	1
CASE NUMBER	660	.5343	40000.000	100000.000	0.000	-18.000	GROUP NUMBER	1
CASE NUMBER	661	.3172	0.000	120000.000	0.000	-18.000	GROUP NUMBER	1
CASE NUMBER	662	.3511	5000.000	120000.000	0.000	-18.000	GROUP NUMBER	1
CASE NUMBER	663	.3832	10000.000	120000.000	0.000	-18.000	GROUP NUMBER	1
CASE NUMBER	664	.4074	15000.000	120000.000	0.000	-18.000	GROUP NUMBER	1
CASE NUMBER	665	.4343	20000.000	120000.000	0.000	-18.000	GROUP NUMBER	1
CASE NUMBER	666	.4667	25000.000	120000.000	0.000	-18.000	GROUP NUMBER	1
CASE NUMBER	667	.5107	30000.000	120000.000	0.000	-18.000	GROUP NUMBER	1
CASE NUMBER	668	.5196	31000.000	120000.000	0.000	-18.000	GROUP NUMBER	1
CASE NUMBER	669	.5286	32000.000	120000.000	0.000	-18.000	GROUP NUMBER	1
CASE NUMBER	670	.3270	0.000	145000.000	0.000	-18.000	GROUP NUMBER	1
CASE NUMBER	671	.3621	5000.000	145000.000	0.000	-18.000	GROUP NUMBER	1
CASE NUMBER	672	.3975	10000.000	145000.000	0.000	-18.000	GROUP NUMBER	1

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DATA INPUT	CASE NUMBER	GROUP NUMBER
.4247 15000.000145000.000	673	1
.4562 20000.000145000.000	674	1
.4940 25000.000145000.000	675	1
.5029 26000.000145000.000	676	1
.2648 0.000 70000.000	677	1
.2898 5000.000 70000.000	678	1
.3133 10000.000 70000.000	679	1
.3333 15000.000 70000.000	680	1
.3508 20000.000 70000.000	681	1
.3722 25000.000 70000.000	682	1
.3984 30000.000 70000.000	683	1
.4242 35000.000 70000.000	684	1
.4510 40000.000 70000.000	685	1
.4574 41000.000 70000.000	686	1
.2750 0.000 90000.000	687	1
.3019 5000.000 90000.000	688	1

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DATA INPUT	CASE NUMBER	GROUP NUMBER
.3259 10000.000 90000.000	689	1
.3449 15000.000 90000.000	690	1
.3667 20000.000 90000.000	691	1
.3915 25000.000 90000.000	692	1
.4201 30000.000 90000.000	693	1
.4525 35000.000 90000.000	694	1
.4589 36000.000 90000.000	695	1
.2783 0.000100000.000	696	1
.3054 5000.000100000.000	697	1
.3312 10000.000100000.000	698	1
.3517 15000.000100000.000	699	1
.3749 20000.000100000.000	700	1
.4014 25000.000100000.000	701	1
.4317 30000.000100000.000	702	1
.4380 31000.000100000.000	703	1
.4446 32000.000100000.000	704	1

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DATA INPUT	CASE NUMBER	705	706	707	708	709	710	711	712	713	714	715	716	717	718	719	720
		.4517	.2865	.3150	.3425	.3654	.3914	.4209	.4274	.4339	.4405	.2987	.3299	.3571	.3831	.4118	.4178
		33000.000100000.000	0.000120000.000	5000.000120000.000	10000.000120000.000	15000.000120000.000	20000.000120000.000	25000.000120000.000	26000.000120000.000	27000.000120000.000	28000.000120000.000	0.000145000.000	5000.000145000.000	10000.000145000.000	15000.000145000.000	20000.000145000.000	21000.000145000.000
		100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
		-18.000	-18.000	-18.000	-18.000	-18.000	-18.000	-18.000	-18.000	-18.000	-18.000	-18.000	-18.000	-18.000	-18.000	-18.000	-18.000
		GROUP NUMBER	GROUP NUMBER	GROUP NUMBER	GROUP NUMBER	GROUP NUMBER	GROUP NUMBER	GROUP NUMBER	GROUP NUMBER	GROUP NUMBER	GROUP NUMBER	GROUP NUMBER	GROUP NUMBER	GROUP NUMBER	GROUP NUMBER	GROUP NUMBER	GROUP NUMBER
		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

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DATA INPUT	CASE NUMBER	721	722	723	724	725	726	727	728	729	730	731	732	733	734	735	736
		.4240	.4307	.2515	.2724	.2867	.3021	.3212	.3417	.3645	.3915	.3965	.4015	.4069	.4125	.4184	.2572
		22000.000145000.000	23000.000145000.000	0.00070000.000	5000.00070000.000	10000.00070000.000	15000.00070000.000	20000.00070000.000	25000.00070000.000	30000.00070000.000	35000.00070000.000	36000.00070000.000	37000.00070000.000	38000.00070000.000	39000.00070000.000	40000.00070000.000	0.00090000.000
		100.000	100.000	200.000	200.000	200.000	200.000	200.000	200.000	200.000	200.000	200.000	200.000	200.000	200.000	200.000	200.000
		-18.000	-18.000	-18.000	-18.000	-18.000	-18.000	-18.000	-18.000	-18.000	-18.000	-18.000	-18.000	-18.000	-18.000	-18.000	-18.000
		GROUP NUMBER	GROUP NUMBER	GROUP NUMBER	GROUP NUMBER	GROUP NUMBER	GROUP NUMBER	GROUP NUMBER	GROUP NUMBER	GROUP NUMBER	GROUP NUMBER	GROUP NUMBER	GROUP NUMBER	GROUP NUMBER	GROUP NUMBER	GROUP NUMBER	GROUP NUMBER
		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

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DATA INPUT	CASE NUMBER	737	2799	5000.000	90000.000	200.000	-18.000	GROUP NUMBER	1
CASE NUMBER	738	2977	10000.000	90000.000	200.000	-18.000	GROUP NUMBER	1	
CASE NUMBER	739	3163	15000.000	90000.000	200.000	-18.000	GROUP NUMBER	1	
CASE NUMBER	740	3372	20000.000	90000.000	200.000	-18.000	GROUP NUMBER	1	
CASE NUMBER	741	3606	25000.000	90000.000	200.000	-18.000	GROUP NUMBER	1	
CASE NUMBER	742	3880	30000.000	90000.000	200.000	-18.000	GROUP NUMBER	1	
CASE NUMBER	743	3940	31000.000	90000.000	200.000	-18.000	GROUP NUMBER	1	
CASE NUMBER	744	4002	32000.000	90000.000	200.000	-18.000	GROUP NUMBER	1	
CASE NUMBER	745	4066	33000.000	90000.000	200.000	-18.000	GROUP NUMBER	1	
CASE NUMBER	746	4131	34000.000	90000.000	200.000	-18.000	GROUP NUMBER	1	
CASE NUMBER	747	2604	0.000100000.000	200.000	-18.000	GROUP NUMBER	1		
CASE NUMBER	748	2838	5000.000100000.000	200.000	-18.000	GROUP NUMBER	1		
CASE NUMBER	749	3036	10000.000100000.000	200.000	-18.000	GROUP NUMBER	1		
CASE NUMBER	750	3233	15000.000100000.000	200.000	-18.000	GROUP NUMBER	1		
CASE NUMBER	751	3451	20000.000100000.000	200.000	-18.000	GROUP NUMBER	1		
CASE NUMBER	752	3704	25000.000100000.000	200.000	-18.000	GROUP NUMBER	1		

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DATA INPUT	CASE NUMBER	753	3998	30000.000100000.000	200.000	-18.000	GROUP NUMBER	1
CASE NUMBER	754	4062	31000.000100000.000	200.000	-18.000	GROUP NUMBER	1	
CASE NUMBER	755	2669	0.000120000.000	200.000	-18.000	GROUP NUMBER	1	
CASE NUMBER	756	2922	5000.000120000.000	200.000	-18.000	GROUP NUMBER	1	
CASE NUMBER	757	3157	10000.000120000.000	200.000	-18.000	GROUP NUMBER	1	
CASE NUMBER	758	3369	15000.000120000.000	200.000	-18.000	GROUP NUMBER	1	
CASE NUMBER	759	3613	20000.000120000.000	200.000	-18.000	GROUP NUMBER	1	
CASE NUMBER	760	3897	25000.000120000.000	200.000	-18.000	GROUP NUMBER	1	
CASE NUMBER	761	3958	26000.000120000.000	200.000	-18.000	GROUP NUMBER	1	
CASE NUMBER	762	2765	0.000145000.000	200.000	-18.000	GROUP NUMBER	1	
CASE NUMBER	763	3034	5000.000145000.000	200.000	-18.000	GROUP NUMBER	1	
CASE NUMBER	764	3299	10000.000145000.000	200.000	-18.000	GROUP NUMBER	1	
CASE NUMBER	765	3538	15000.000145000.000	200.000	-18.000	GROUP NUMBER	1	
CASE NUMBER	766	3595	16000.000145000.000	200.000	-18.000	GROUP NUMBER	1	
CASE NUMBER	767	3647	17000.000145000.000	200.000	-18.000	GROUP NUMBER	1	
CASE NUMBER	768	3701	18000.000145000.000	200.000	-18.000	GROUP NUMBER	1	

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DATA INPUT						
CASE NUMBER	769				GROUP NUMBER	1
	.3757	19000.000145000.000	200.000	-18.000		
CASE NUMBER	770				GROUP NUMBER	1
	.3814	20000.000145000.000	200.000	-18.000		

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## VARIABLE MEANS FOR EACH GROUP

## GROUP NO. 1

( X( 7) .3426446E+01) ( X(19) .1571350E+03) ( DC .5673317E+02) ( X(18) .6945226E+02) ( X( 6) .1317380E+01) ( X(16) .1138398E+01)  
 ( X(26) -.1202251E+02) ( X(10) .1227600E+04) ( X( 8) .3219179E+00) ( X(27) -.3178597E+02) ( X(11) .1240025E+05) ( X(23) .3744072E+05)  
 ( X(13) -.2937815E+04) ( X(28) -.2916512E+01) ( X(25) .1536565E+08) ( X(20) .1825670E+02) ( X(14) .4291789E+00) ( X(30) -.3895293E+04)  
 ( DT -.9067332E+01) ( X(15) .3431590E+04) ( X(43) -.1409095E+04) ( X(21) .7052837E+05) ( X(47) -.3534528E+06) ( X(31) -.1029865E+05)  
 ( X(42) -.6195607E+03) ( X(46) -.1441665E+06) ( X(36) -.1643431E+06) ( MACH .4055491E+00)

## GROUP NO. 2

( X( 7) .2947945E+01) ( X(19) .1285165E+03) ( DC .5487805E+02) ( X(18) .6271224E+02) ( X( 6) .1244699E+01) ( X(16) .9780265E+00)  
 ( X(26) .3326571E+02) ( X(10) .1242563E+04) ( X( 8) .3209833E+00) ( X(27) .7839730E+02) ( X(11) .1187669E+05) ( X(23) .2995849E+05)  
 ( X(13) .2585678E+05) ( X(28) .8619331E+01) ( X(25) .1442844E+08) ( X(20) .1771076E+02) ( X(14) .4043889E+00) ( X(30) .3189213E+05)  
 ( DT .2682927E+02) ( X(15) .2961932E+04) ( X(43) .3384588E+04) ( X(21) .6526506E+05) ( X(47) .7921608E+06) ( X(31) .7465061E+05)  
 ( X(42) .1674125E+04) ( X(46) .3724962E+06) ( X(36) .1426390E+07) ( MACH .3799314E+00)

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## TABLE OF MEANS (TOTAL)

VARIABLE	MEAN
X( 7)	.3197138E+01
X(19)	.1434204E+03
DC	.5584416E+02
X(18)	.6622230E+02
X( 6)	.1282550E+01
X(16)	.1061545E+01
X(26)	.9680547E+01
X(10)	.1234771E+04
X( 8)	.3214700E+00
X(27)	.2101615E+02
X(11)	.1214935E+05
X(23)	.3385508E+05
X(13)	.1086115E+05
X(28)	.2611704E+01
X(25)	.1491652E+08
X(20)	.1799508E+02
X(14)	.4172990E+00
X(30)	.1325478E+05
DT	.8135065E+01
X(15)	.3206520E+04
X(43)	.8881371E+03
X(21)	.6800608E+05
X(47)	.1955490E+06
X(31)	.3041080E+05
X(42)	.4796213E+03
X(46)	.1034290E+06
X(36)	.5979694E+06
MACH	.3932726E+00

CORRELATION MATRIX  
FOR TOTAL.

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	X( 7)	X(19)	DC	X(18)	X( 6)	X(16)	X(26)	X(10)
X( 7)	.1000000E+01	.1480984E+00	-.1481202E+00	.3913292E-01	.8955821E+00	.9881686E+00	.2742821E-01	-.3294092E+00
X(19)	.1480984E+00	.1000000E+01	.7415936E+00	.9341646E+00	.1936931E+00	.1540656E+00	-.1018930E-01	-.1317796E+00
DC	-.1481202E+00	.7415936E+00	.1000000E+01	.8853786E+00	-.9928506E-01	-.1307539E+00	-.2279256E-01	-.1106941E-01
X(18)	.3913292E-01	.9341646E+00	.8853786E+00	.1000000E+01	.1334999E+00	.5067538E-01	-.1054992E-02	-.6994595E-01
X( 6)	.8955821E+00	.1936931E+00	-.9928506E-01	.1334999E+00	.1000000E+01	.8588355E+00	.9328349E-01	-.2206800E+00
X(16)	.9881686E+00	.1540656E+00	-.1307539E+00	.5067538E-01	.8588355E+00	.1000000E+01	.3105791E-01	-.4111000E+00
X(26)	.2742821E-01	-.1018930E-01	-.2279256E-01	-.1054992E-02	.9328349E-01	.3105791E-01	.1000000E+01	-.3869819E-01
X(10)	-.3294092E+00	-.1317796E+00	-.1106941E-01	-.6994595E-01	-.2206800E+00	-.4111000E+00	-.3869819E-01	.1000000E+01
X( 8)	.3439639E+00	.1405634E+00	.1146394E-01	.7143674E-01	.2219569E+00	.4484078E+00	.3294886E-01	-.9247761E+00
X(27)	.9582955E-01	.4549074E-02	-.3728851E-01	-.1021251E-01	.1284270E+00	.1019863E+00	.9400533E+00	-.7634951E-01
X(11)	-.1290592E+00	.6468771E+00	.9090107E+00	.7924525E+00	-.8832445E-01	-.1141613E+00	-.3252292E-01	-.6094733E-02
X(23)	.3183151E+00	.8838874E+00	.6293879E+00	.8238306E+00	.3341647E+00	.3294642E+00	-.2559000E-01	-.1727644E+00
X(13)	-.8528584E-01	.3657701E-01	-.4444767E-02	-.2087948E-01	.5818818E-01	.7635770E-01	.7872602E+00	-.5677992E-02
X(28)	-.8354107E-01	.3103696E-01	-.4369217E-02	-.1774361E-01	.5399218E-01	.7133782E-01	.9052939E+00	-.4479659E-01
X(25)	-.2317805E+00	.3161413E+00	.6632666E+00	.5048309E+00	-.1644912E+00	-.2488599E+00	-.4497503E-01	.4148643E+00
X(20)	-.1219984E+00	.7708620E+00	.9900639E+00	.8928768E+00	-.8035901E-01	-.9928599E-01	-.1896318E-01	-.7624777E-01
X(14)	.9173184E+00	.2189178E+00	-.8447237E-01	.1424490E+00	.9657840E+00	.9185787E+00	.9354918E-01	-.4151484E+00
X(30)	.9623668E-01	.7751982E-03	-.2866290E-01	.6062744E-02	.1584360E+00	.9842036E-01	.8825721E+00	-.5776039E-01
DT	-.9973136E-01	-.3786118E-01	-.5931092E-02	-.2232605E-01	-.6557288E-01	-.9124090E-01	.8997869E+00	-.8336950E-03
X(15)	.4848458E+00	.3159327E-01	-.1693866E+00	-.5618695E-01	.5813097E+00	.3577079E+00	-.1920303E-01	.4625856E+00
X(43)	.2053649E-02	.1817560E+00	.1955990E+00	.2185785E+00	.3206213E-01	.9630069E-02	.3822347E+00	-.5522201E-01
X(21)	-.2191853E+00	.4062776E+00	.7625072E+00	.6013149E+00	-.1568262E+00	-.2247616E+00	-.4114109E-01	.3154028E+00
X(47)	.7620306E-02	.1242115E+00	.1471377E+00	.1642355E+00	.4474538E-01	.1313651E-01	.5550746E+00	-.5298377E-01
X(31)	.2117256E+00	.7171679E-02	-.5476717E-01	-.1002716E-01	.2236060E+00	.2173335E+00	.8282974E+00	-.1150480E+00
X(42)	-.3280845E-01	.1930899E+00	.2638462E+00	.2655262E+00	.1257994E-01	-.2524602E-01	.4271604E+00	-.4048974E-01
X(46)	-.3398059E-01	.1387700E+00	.2112515E+00	.2097699E+00	.2021047E-01	-.2856147E-01	.5683933E+00	-.3376807E-01
X(36)	-.1023077E+00	.2370577E+00	.4130256E+00	.3328819E+00	-.7374628E-01	-.9150708E-01	.3202090E+00	-.1097906E-01
MACH	.8121824E+00	-.3017087E+00	-.5874965E+00	-.4169496E+00	.7716204E+00	.7526158E+00	-.5748248E-01	.7503011E-02



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	X(8)	X(27)	X(11)	X(23)	X(13)	X(28)	X(25)	X(20)
X(7)	.3439639E+00	.9582955E-01	-.1290592E+00	.3183151E+00	-.8528584E-01	-.8354107E-01	-.2317805E+00	-.1219984E+00
X(19)	-.1405634E+00	-.4549074E-02	.6468771E+00	.8838874E+00	-.3657701E-01	-.3103696E-01	.3161413E+00	.7708620E+00
DC	.1146394E-01	-.3728851E-01	.9090107E+00	.6293879E+00	-.4444757E-02	-.4369217E-02	.6632666E+00	.9900639E+00
X(18)	.7143674E-01	-.1021251E-01	.7924525E+00	.8238306E+00	-.2087948E-01	-.1774361E-01	.5048309E+00	.8928768E+00
X(6)	.2215569E+00	.1284270E+00	-.8832445E-01	.3341647E+00	-.5818818E-01	-.5399218E-01	-.1644912E+00	-.8035901E-01
X(16)	.4484078E+00	.1019863E+00	-.1141613E+00	.3294642E+00	-.7635770E-01	-.7133782E-01	-.2488599E+00	-.9928599E-01
X(26)	.3294896E-01	.9400533E+00	-.3252292E-01	-.2559000E-01	.7872602E+00	.9052939E+00	-.4497503E-01	-.1896318E-01
X(10)	-.9247761E+00	-.7634951E-01	-.6094733E-02	-.1727644E+00	-.5677992E-02	-.4479659E-01	.4148643E+00	-.7624777E-01
X(8)	.1000000E+01	.7486227E-01	.7439575E-02	.1841642E+00	.2428671E-02	.4355972E-01	.3833942E+00	.8243044E-01
X(27)	.7486227E-01	.1000000E+01	-.4790406E-01	-.1278360E-01	.6604383E+00	.7906906E+00	-.6490964E-01	-.3123194E-01
X(11)	.7439575E-02	-.4790406E-01	.1000000E+01	.6901062E+00	-.7348666E-02	-.1403004E-01	.7310381E+00	.9000077E+00
X(23)	.1841642E+00	-.1278360E-01	.6901062E+00	.1000000E+01	-.5750569E-01	-.6061437E-01	.3180115E+00	.6611804E+00
X(13)	.2428671E-02	.6604383E+00	-.7348666E-02	-.5750569E-01	.1000000E+01	.8774309E+00	-.6682857E-02	-.4444337E-02
X(28)	.4355972E-01	.7906906E+00	-.1403004E-01	-.6061437E-01	.8774309E+00	.1000000E+01	-.3158351E-01	-.6945312E-03
X(25)	-.3833942E+00	-.6490964E-01	.7310381E+00	.3180115E+00	-.6682857E-02	-.3158351E-01	.1000000E+01	.5742277E+00
X(20)	.8243044E-01	-.3123194E-01	.9000077E+00	.6611804E+00	-.4444337E-02	-.6945312E-03	.5742277E+00	.1000000E+01
X(14)	.4440335E+00	.1387982E+00	-.7582608E-01	.3596872E+00	-.5084143E-01	-.3872798E-01	-.2314684E+00	-.5145400E-01
X(30)	.5427870E-01	.8206244E+00	-.3144236E-01	.4050198E-02	.8884022E+00	.7965167E+00	-.4659599E-01	-.2432516E-01
DT	-.4403357E-02	.7672831E+00	-.1432664E-01	.6750658E-01	.8841897E+00	.9914249E+00	-.1623633E-01	-.5237786E-02
X(15)	-.4728663E+00	-.3124121E-02	-.1446265E+00	.6922802E-01	-.9584494E-01	-.1140996E+00	.3845761E-01	-.1882485E+00
X(43)	.8449410E-01	.3439819E+00	.1557162E+00	.1278894E+00	.2890517E+00	.3553495E+00	.6545466E-01	.2028198E+00
X(21)	-.2924691E+00	-.5853250E-01	.6940357E+00	.3159895E+00	-.7892517E-02	-.2515182E-01	.9168494E+00	.6707952E+00
X(47)	.4336256E-01	.5382307E+00	.1531267E+00	.1207449E+00	.4055466E+00	.4951666E+00	.6139087E-01	.1534203E+00
X(31)	.1169786E+00	.8779670E+00	-.5742841E-01	.2665911E-01	.7433449E+00	.6905256E+00	-.8413093E-01	-.4650222E-01
X(42)	.2937773E-01	.3370820E+00	.2260538E+00	.1434794E+00	.3661237E+00	.4248269E+00	.1325700E+00	.2654031E+00
X(46)	.2055553E-01	.4805520E+00	.2264688E+00	.1385559E+00	.4728207E+00	.5462698E+00	.1324018E+00	.2126080E+00
X(36)	-.4520082E-02	.2180839E+00	.3761232E+00	.1864229E+00	.4571587E+00	.4014198E+00	.2745154E+00	.4074261E+00
MACH	-.1360843E-01	.5569607E-02	-.4980879E+00	-.8544741E-01	-.1589832E+00	-.1763325E+00	-.3657640E+00	-.5803978E+00

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	X(14)	X(30)	DT	X(15)	X(43)	X(21)	X(47)	X(31)
X(7)	.9173184E+00	.9623668E-01	-.9972136E-01	.4848458E+00	.2053649E-02	-.2191853E+00	.7620306E-02	.2117256E+00
X(19)	.2189178E+00	.7751982E-03	-.3786118E-01	-.3159327E-01	.1817560E+00	.4062776E+00	.1242115E+00	.7171679E-02
DC	-.8447237E-01	-.2866290E-01	.5931082E-02	-.1693866E+00	.1955990E+00	.7625072E+00	.1471377E+00	-.5476717E-01
X(18)	.1424480E+00	.6062744E-02	-.2332605E-01	-.5618695E-01	.2185785E+00	.6013149E+00	.1642355E+00	-.1002716E-01
X(6)	.9657840E+00	.1584360E+00	-.6557288E-01	.5813097E+00	.3206213E-01	-.1568262E+00	.4474538E-01	.2236060E+00
X(16)	.9195787E+00	.9842036E-01	-.9124090E-01	.3577079E+00	.9630069E-02	-.2247616E+00	.1313651E-01	.2173335E+00
X(26)	.9354918E-01	.8825721E+00	-.8997869E-01	-.1920303E-01	.3822347E+00	-.4114109E-01	.5550746E+00	.8282974E+00
X(10)	-.4151484E+00	-.5776039E-01	.8336950E-03	.4625856E+00	-.5522201E-01	.3154028E+00	-.5298377E-01	-.1150480E+00
X(8)	.4440335E+00	.5427870E-01	-.4403576E-02	.4728663E+00	.4849410E-01	-.2924691E+00	.4336256E-01	.1169786E+00
X(27)	.1387982E+00	.8206244E+00	.7672831E+00	-.3124121E-02	.3439819E+00	-.5853250E-01	.5382307E+00	.8779670E+00
X(11)	-.7582608E-01	-.3144236E-01	-.1432664E-01	-.1446265E+00	.1557162E+00	.6940357E+00	.1531267E+00	-.5742841E-01
X(23)	.3596872E+00	.4050198E-02	-.6750658E-01	.6922802E-01	.1278894E+00	.3159895E+00	.1207449E+00	.2665911E-01
X(13)	-.5084143E-01	.8884022E+00	.8841897E+00	-.9584494E-01	.2890517E+00	-.7892517E-02	.4055466E+00	.7433449E+00
X(28)	.3872798E-01	.7965167E+00	.9914249E+00	-.1140996E+00	.3553495E+00	-.2515182E-01	.4951666E+00	.6905256E+00
X(25)	-.2314684E+00	-.4659599E-01	-.1623633E-01	.3845761E-01	.6545466E-01	.9168494E+00	.6139087E-01	-.8413093E-01
X(20)	-.5145400E-01	-.2432516E-01	-.5237786E-02	-.1882485E+00	.2028198E+00	.6707952E+00	.1534203E+00	-.4650222E-01
X(14)	.1000000E+01	.1589805E+00	.5991329E-01	.3814952E+00	.4307316E-01	-.2019692E+00	.5248852E-01	.2383397E+00
X(30)	.1589805E+00	.1000000E+01	.7895292E+00	.1869528E-01	.3259066E+00	-.4525322E-01	.4720277E+00	.9340484E+00
DT	-.5991329E-01	.7895292E+00	.1000000E+01	-.1000661E+00	.3406114E+00	-.1447263E-01	.4786435E+00	.6662837E+00
X(15)	.3814952E+00	.1869528E-01	-.1000661E+00	.1000000E+01	-.5366118E-01	-.4039773E-01	-.4172974E-01	.4915358E-01
X(43)	.4307316E-01	.3259066E+00	.3406114E+00	-.5366118E-01	.1000000E+01	.9692837E-01	.8910296E+00	.2900039E+00
X(21)	-.2019692E+00	-.4525322E-01	-.1447263E-01	-.4039773E-01	.9692837E-01	.1000000E+01	.6465250E-01	.7881104E-01
X(47)	.5248852E-01	.4720277E+00	.4786435E+00	-.4172974E-01	.8910296E+00	.6465250E-01	.1000000E+01	.4524984E+00
X(31)	.2383397E+00	.9340484E+00	.6662837E+00	.4915358E-01	.2900039E+00	-.7881104E-01	.4524984E+00	.1000000E+01
X(42)	.1983689E-01	.3717351E+00	.4199177E+00	-.7262145E-01	.9369673E+00	.1679553E+00	.8546321E+00	.2861898E+00
X(46)	.2355640E-01	.4944712E+00	.5424240E+00	-.6168166E-01	.8358973E+00	.1299555E+00	.9354202E+00	.4086038E+00
X(36)	-.6407210E-01	.3588906E+00	.4041628E+00	-.1163737E+00	.6570434E+00	.3130844E+00	.6018719E+00	.2387869E+00
MACH	.7027022E+00	.7210529E-02	-.1762167E+00	.6930534E+00	-.1420289E+00	-.4528083E+00	-.1118815E+00	.1052065E+00

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	X(42)	X(46)	X(36)	MACH
X( 7)	-.3280345E-01	-.3398059E-01	-.1023077E+00	.8121824E+00
X(19)	.1930899E+00	.1387700E+00	.2370577E+00	-.3017087E+00
DC	.2638462E+00	.2112515E+00	.4130256E+00	-.5874965E+00
X(18)	.2655262E+00	.2097699E+00	.3328819E+00	-.4169496E+00
X( 6)	.1257994E-01	.2021047E-01	-.7374628E-01	.7716204E+00
X(16)	-.2524602E-01	-.2856147E-01	-.9150708E-01	.7526158E+00
X(26)	.4271604E+00	.5683933E+00	.3202090E+00	-.5748248E-01
X(10)	-.4048974E-01	-.3376807E-01	-.1097906E-01	.7503011E-02
X( 8)	.2937773E-01	.2055553E-01	.4520082E-02	-.1360843E-01
X(27)	.3370820E+00	.4805520E+00	.2180839E+00	.5569607E-02
X(11)	.2260538E+00	.2264688E+00	.3761232E+00	-.4980879E+00
X(23)	.1434794E+00	.1365559E+00	.1864229E+00	-.8544741E-01
X(13)	.3661237E+00	.4728207E+00	.4571587E+00	-.1589832E+00
X(28)	.4248269E+00	.5462698E+00	.4014198E+00	-.1763325E+00
X(25)	.1325700E+00	.1324018E+00	.2745154E+00	-.3657640E+00
X(20)	.2654038E+00	.2126080E+00	.4074261E+00	-.5803978E+00
X(14)	.1983685E-01	.2355640E-01	-.6407210E-01	.7027022E+00
X(30)	.3717351E+00	.4944712E+00	.3588906E+00	.7210529E-02
DT	.4199177E+00	.5424240E+00	.4041628E+00	-.1762167E+00
X(15)	-.7262145E-01	-.6168166E-01	-.1163737E+00	.6930534E+00
X(43)	.9369672E+00	.8358973E+00	.6570434E+00	-.1420289E+00
X(21)	.1679553E+00	.1299555E+00	.3130844E+00	-.4528083E+00
X(47)	.8546321E+00	.9354202E+00	.6018719E+00	-.1118815E+00
X(31)	.2861898E+00	.4086038E+00	.2387869E+00	.1052065E+00
X(42)	.1000000E+01	.9149255E+00	.7965757E+00	-.1981790E+00
X(46)	.9149255E+00	.1000000E+01	.7353229E+00	-.1707209E+00
X(36)	.7965757E+00	.7353229E+00	.1000000E+01	-.3084184E+00
MACH	-.1981790E+00	-.1707209E+00	-.3084184E+00	.1000000E+01

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	X( 7)	X(19)	DC	X(18)	X( 6)	X(16)	X(26)	X(10)
X( 7)	.1000000E+01	.1451411E+00	-.1497504E+00	.3665948E-01	.8954186E+00	.9880878E+00	.1762546E+00	-.3301450E+00
X(19)	.1451411E+00	.1000000E+01	.7418126E+00	.9341838E+00	.1917519E+00	.1613512E+00	.3554338E-01	-.1315610E+00
DC	-.1497504E+00	.7418126E+00	.1000000E+01	.8854603E+00	-.1001100E+00	-.1321590E+00	-.2512986E-01	-.1098947E-01
X(18)	.3665948E-01	.9341838E+00	.8854603E+00	.1000000E+01	.1321902E+00	.4860637E-01	.3269667E-01	-.6975954E-01
X( 6)	.8954186E+00	.1917519E+00	-.1001100E+00	.1321902E+00	.1000000E+01	.8593278E+00	.2428755E+00	-.2206161E+00
X(16)	.9880878E+00	.1613512E+00	-.1321590E+00	.4860637E-01	.8593278E+00	.1000000E+01	.1734521E+00	-.4120200E+00
X(26)	.1762546E+00	.3554338E-01	-.2512986E-01	.3269667E-01	.2428755E+00	.1734521E+00	.1000000E+01	.7621536E-01
X(10)	-.3301450E+00	-.1315610E+00	-.1098947E-01	-.6975954E-01	-.2206161E+00	-.4120200E+00	.7621536E-01	.1000000E+01
X( 8)	.3444352E+00	.1402172E+00	.1134952E-01	.7116201E-01	.2216660E+00	.4491739E+00	.7139347E-01	-.9247746E+00
X(27)	.2218910E+00	.3026692E-01	-.4194226E-01	.9895258E-02	.2356984E+00	.2241106E+00	.8997274E+00	-.1123154E+00
X(11)	-.1312995E+00	.6468027E+00	.9090188E+00	.7923926E+00	-.8958870E-01	-.1161497E+00	-.3185123E-01	-.5955834E-02
X(23)	.3143169E+00	.8838644E+00	.6300669E+00	.8241383E+00	.3314764E+00	.3257573E+00	.4268394E-01	-.1725921E+00
X(13)	-.2467042E-01	.1266134E-01	.3513321E-02	-.3932784E-02	.1873731E-01	-.1851105E-01	.5175161E+00	-.1640618E-01
X(28)	.2787399E-02	.7495948E-02	.9179753E-02	.1044730E-01	.4690019E-02	.1670576E-01	.7004569E+00	-.1121886E+00
X(25)	-.2346184E+00	.3157320E+00	.6632300E+00	.5046182E+00	-.1659917E+00	-.2515093E+00	-.5132155E-01	.4150944E+00
X(20)	-.1234170E+00	.7711339E+00	.9900635E+00	.8929771E+00	-.8108574E-01	-.1004801E+00	-.1993722E-01	-.7618015E-01
X(14)	.9174169E+00	.2171230E+00	-.8522185E-01	.1412103E+00	.9656567E+00	.9185232E+00	.2392475E+00	-.4154214E+00
X(30)	.2039655E+00	.3299718E-01	-.2907249E-01	.2877903E-01	.2574390E+00	.2013209E+00	.8104973E+00	-.8149956E-01
DT	-.3159018E-01	.6735825E-02	.6210086E-02	.1078447E-02	-.1983314E-01	-.2558005E-01	.6800943E+00	-.1837622E-01
X(15)	.4807523E+00	-.3497184E-01	-.1707910E+00	-.5852302E-01	.5792072E+00	.3529249E+00	.7994350E-01	.4648888E+00
X(43)	.3298928E-01	.2034877E+00	.2085173E+00	.2377637E+00	.5408944E-01	.3886499E-01	.2419592E+00	-.6064109E-01
X(21)	-.2218800E+00	.4059777E+00	.7624883E+00	.6011616E+00	-.1582551E+00	-.2272329E+00	-.4599545E-01	.3156020E+00
X(47)	.5370646E-01	.1556975E+00	.1671785E+00	.1935394E+00	.7942416E-01	.5672324E-01	.3958036E+00	-.6244530E-01
X(31)	.3128727E+00	.3323256E-01	-.5866664E-01	.4308970E-02	.3055924E+00	.3152086E+00	.7918027E+00	-.1414820E+00
X(42)	.3363645E-02	.2242091E+00	.2485545E+00	.2968252E+00	.3929677E-01	.8910735E-02	.2282272E+00	-.4702718E-01
X(46)	.1396051E-01	.1799316E+00	.2464493E+00	.2534989E+00	.5805698E-01	.1657009E-01	.3474840E+00	-.4309399E-01
X(36)	-.7567517E-01	.2641323E+00	.4399444E+00	.3607273E+00	-.5633815E-01	-.6640396E-01	.1062139E+00	-.1444481E-01
MACH	.8109386E+00	-.3120856E+00	-.5966344E+00	-.4265434E+00	.7728858E+00	.7509228E+00	.1192231E+00	.8931993E-02

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	X(8)	X(27)	X(11)	X(23)	X(13)	X(28)	X(25)	X(20)
X(7)	.3444352E+00	.2218910E+00	-.1312995E+00	.3143169E+00	-.2467042E-01	.2787399E-02	-.2346184E+00	-.1234170E+00
X(19)	.1402172E+00	.3026692E-01	.6468027E+00	.8838644E+00	-.1266134E-01	.7495948E-02	.3157320E+00	.7711339E+00
DC	.1134952E-01	-.4194226E-01	.9090188E+00	.6300659E+00	.3513221E-02	.9179753E-02	.6632300E+00	.9900635E+00
X(18)	.7118201E-01	.9895258E-02	.7923926E+00	.8241383E+00	-.3932784E-02	.1044730E-01	.5046182E+00	.8929771E+00
X(5)	.2216660E+00	.2356984E+00	-.8958870E-01	.3314754E+00	-.1873731E-01	.4690019E-02	-.1659817E+00	-.8108574E-01
X(16)	.4491739E+00	.2241106E+00	-.1161497E+00	.3257573E+00	-.1851105E-01	.1670575E-01	.2515093E+00	-.1004801E+00
X(26)	.7139347E-01	.8997274E+00	-.3185123E-01	.4268394E-01	.5151616E+00	.7004563E+00	.5132155E-01	-.1993722E-01
X(10)	-.9247446E+00	-.1123154E+00	-.5955834E-02	-.1725921E+00	-.1640618E-01	-.1121886E+00	.4150944E+00	-.7618015E-01
X(8)	.1000000E+01	.1136336E+00	.7240693E-02	.1837943E+00	.1540189E-01	.1163550E+00	-.3836964E+00	.8233461E-01
X(27)	.1136336E+00	.1000000E+01	-.4981111E-01	.4188926E-01	.3413549E+00	.5473320E+00	-.7209520E-01	-.3450805E-01
X(11)	.7240693E-02	-.4981111E-01	.1000000E+01	.6905230E+00	.6576221E-02	.1981934E-02	.7309569E+00	.9000220E+00
X(23)	.1837943E-01	.4188926E-01	.6905230E+00	.1000000E+01	-.1780795E-01	-.9666282E-02	.3175626E+00	.6619778E+00
X(13)	.1540189E-01	.3413549E+00	.6576221E-02	-.1780795E-01	.1000000E+01	.7607697E+00	.8607331E-02	.2587540E-02
X(28)	.1163550E+00	.5473320E+00	.1981934E-02	-.9666282E-02	.7607697E+00	.1000000E+01	-.2374101E-01	.1533453E-01
X(25)	-.3836964E+00	-.7209520E-01	.7309569E+00	.3175626E+00	.8607331E-02	-.3374101E-01	.1000000E+01	.5741841E+00
X(20)	.8233461E-01	-.3450805E-01	.9000220E+00	.6619778E+00	.2587540E-02	.1533453E-01	.5741841E+00	.1000000E+01
X(14)	.4441595E+00	.2470908E+00	-.7699865E-01	.3572254E+00	-.1129405E-01	.3190744E-01	.2330181E+00	-.5208525E-01
X(30)	.7993664E-01	.6860881E+00	-.2681994E-01	.5734050E-01	.8047198E+00	.6540648E+00	-.4553700E-01	.2421652E-01
DT	.1383638E-01	.4782879E+00	-.1705539E-02	-.2423473E-01	.7909716E+00	.9596573E+00	-.4042242E-03	.5922861E-02
X(15)	-.4755205E+00	.7353727E-01	-.1465516E+00	.6432313E-01	-.5272085E-01	.8787163E-01	.3710214E-01	-.1896409E+00
X(43)	.5472528E-01	.1950020E+00	.1689378E+00	.1550054E+00	.1082390E+00	.1927218E+00	.7449387E-01	.2158034E+00
X(21)	-.2927361E+00	-.6413403E-01	.6939471E+00	.3155842E+00	.6056712E-02	-.2147568E-01	.9168241E+00	.6707685E+00
X(47)	.5349921E-01	.3746181E+00	.1771668E+00	.1635527E+00	.1625506E+00	.2816520E+00	.7629344E-01	.1736872E+00
X(31)	.1460439E+00	.8304235E+00	-.5730075E-01	.7190159E-01	.6106451E+00	.5513549E+00	-.8824031E-01	-.4946287E-01
X(42)	.3649023E-01	.1196199E+00	.2506958E+00	.1807593E+00	.1532846E+00	.2156561E+00	.1502839E+00	.2898603E+00
X(46)	.2998580E-01	.2385872E+00	.2677632E+00	.1910728E+00	.2120759E+00	.2938534E+00	.1609965E+00	.2474895E+00
X(36)	.8844285E-02	-.4788214E-02	.4034171E+00	.2192105E+00	.3408649E+00	.2604146E+00	.2963735E+00	.4337064E+00
MACH	-.1569228E-01	.1581235E+00	-.5072687E+00	-.9692949E-01	-.6664463E-01	-.7802839E-01	-.3734073E+00	-.5892913E+00

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	X(14)	X(30)	DT	X(15)	X(43)	X(21)	X(47)	X(31)
X(7)	.9174169E+00	.2039655E+00	-.3159018E-01	.4807623E+00	.3298928E-01	-.2218800E+00	.5370646E-01	.3128727E+00
X(19)	.2171230E+00	.3299718E-01	-.6735829E-02	.3497184E-01	.2034877E+00	.4059777E+00	.1556975E+00	.3323256E-01
DC	-.8522185E-01	-.2907249E-01	.6210086E-02	-.1707910E+00	.2085173E+00	.7624883E+00	.1671785E+00	-.5866664E-01
X(18)	.1412103E+00	.2877903E-01	.1078447E-02	-.5852302E-01	.2377637E+00	.6011616E+00	.1935394E+00	.4308970E-02
X(6)	.9656567E+00	.2574390E+00	-.1983314E-01	.5792072E+00	.5408944E-01	-.1582551E+00	.7942416E-01	.3055524E+00
X(16)	.9185232E+00	.2013209E+00	-.2558005E-01	.3529249E+00	.3886499E-01	-.2272329E+00	.5672324E-01	.3152086E+00
X(26)	.2392475E+00	.8104973E+00	.6800943E+00	.7994350E-01	.2419592E+00	-.4599645E-01	.3958036E+00	.7918027E+00
X(10)	-.4154214E+00	-.6149956E-01	.1837622E-01	.4648888E+00	-.6064109E-01	.3155020E+00	-.6244530E-01	.1414820E+00
X(8)	.4441595E+00	.7993664E-01	.1383638E-01	.4755205E+00	.5472528E-01	-.2927361E+00	.5349921E-01	.1460439E+00
X(27)	.2470908E+00	.6860881E+00	.4782879E+00	.7353727E-01	.1950020E+00	-.6413403E-01	.3746181E+00	.8304235E+00
X(11)	-.7699865E-01	-.2681994E-01	.1705539E-02	-.1465516E+00	.1689378E+00	.6939471E+00	.1771668E+00	.2506958E+00
X(23)	.3572254E+00	.5734050E-01	-.2423473E-01	.6432313E-01	.1550054E+00	.3155842E+00	.1635527E+00	.7190159E-01
X(13)	-.1129405E-01	.8047198E+00	.7909716E+00	.5272085E-01	.1082390E+00	.6056712E-02	.1625506E+00	.6106451E+00
X(28)	.3190744E-01	.6540648E+00	.9596573E+00	-.8787163E-01	.1927218E+00	-.2147568E-01	.2816520E+00	.5513549E+00
X(25)	-.2330181E+00	-.4553700E-01	.4042242E-03	.3710214E-01	.7449387E-01	.9168241E+00	.7629344E-01	-.8824031E-01
X(20)	-.5208525E-01	-.2421652E-01	.5922861E-02	-.1896409E+00	.2158034E+00	.6707685E+00	.1736872E+00	-.4946287E-01
X(14)	.1000000E+01	.2556489E+00	-.1313604E-01	.3784762E+00	.6470658E-01	-.2034070E+00	.8657798E-01	.3211207E+00
X(30)	.2556489E+00	.1000000E+01	.6423445E+00	.9248067E-01	.1799410E+00	-.4447823E-01	.2890186E+00	.9103570E+00
DT	-.1313604E-01	.6423445E+00	.1000000E+01	.5810776E-01	.1592429E+00	.1879478E-02	.2424034E+00	.4955257E+00
X(15)	.3784762E+00	.9248067E-01	.5810776E-01	.1000000E+01	-.2990035E-01	.4196888E-01	-.7163520E-02	.1111415E+00
X(43)	.6470658E-01	.1799410E+00	.1592429E+00	-.2990035E-01	.1000000E+01	.1072809E+00	.8832842E+00	.1575178E+00
X(21)	-.2034070E+00	-.4447823E-01	.1879478E-02	.4196888E-01	.1072809E+00	.1000000E+01	.7950787E-01	-.8246381E-01
X(47)	.8657798E-01	.2890186E+00	.2424034E+00	.7163520E-02	.8832842E+00	.7950787E-01	.1000000E+01	.2939764E+00
X(31)	.3211207E+00	.9103570E+00	.4955257E+00	.1111415E+00	.1575178E+00	-.8246381E-01	.2939764E+00	.1000000E+01
X(42)	.4592463E-01	.1869769E+00	.2041433E+00	-.4496889E-01	.3017340E+00	-.1881211E+00	.8285528E+00	.1091636E+00
X(46)	.6023039E-01	.2788758E+00	.2844893E+00	-.2489666E-01	.8255558E+00	.1577470E+00	.9210862E+00	.2035267E+00
X(36)	-.4710544E-01	.2097121E+00	.2699373E+00	-.9494256E-01	.6195702E+00	.3388605E+00	.5419689E+00	.8169542E-01
MACH	.7032916E+00	.1412707E+00	-.7760486E-01	.6910031E+00	-.9956997E-01	-.4614434E+00	-.4964579E-01	.2280832E+00

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	X(42)	X(46)	X(36)	MACH
X(7)	.3363645E-02	.1386051E-01	-.7567517E-01	.8109386E-00
X(19)	.2242091E+00	.1799316E+00	.2641323E+00	-.3120856E+00
DC	.2885545E+00	.2464493E+00	.4399444E+00	-.5966344E+00
X(18)	.2968252E+00	.2534989E+00	.3607273E+00	-.4265434E+00
X(6)	.3929577E-01	.5805688E-01	.5633815E-01	.7728858E+00
X(16)	.8910735E-02	.1657009E-01	.6640396E-01	.7509228E+00
X(26)	.2282272E+00	.3474840E+00	.1062139E+00	.1192231E+00
X(10)	-.4702718E-01	-.4309399E-01	-.1444481E-01	.8931993E-02
X(8)	.3649023E-01	.2998580E-01	.8844285E-02	-.1569228E-01
X(27)	.1196199E+00	.2365872E+00	.4788214E-02	.1581235E+00
X(11)	.2506958E+00	.2677632E+00	.4034171E+00	-.5072687E+00
X(12)	.1807563E+00	.1910728E+00	.2192105E+00	-.9692949E-01
X(13)	.1532846E+00	.2120759E+00	.3408648E+00	-.6664463E-01
X(28)	.2156561E+00	.2938534E+00	.2604146E+00	-.7802839E-01
X(25)	.1502839E+00	.1609965E+00	.2963735E+00	-.3734073E+00
X(20)	.2898603E+00	.2474895E+00	.4337064E+00	-.5892913E+00
X(14)	.4592463E-01	.6023039E-01	.4710544E-01	.7032916E+00
X(30)	.1869769E+00	.2788758E+00	.2097121E+00	.1412707E+00
DT	.2041433E+00	.2844893E+00	.2699373E+00	-.7760486E-01
X(15)	-.4496889E-01	-.2489666E-01	-.9494256E-01	.6910031E+00
X(43)	.9317340E+00	.8255558E+00	.6195702E+00	-.9956997E-01
X(21)	.1881211E+00	.1577470E+00	.3368605E+00	-.4614434E+00
X(47)	.8285528E+00	.9210862E+00	.5419689E+00	-.4964579E-01
X(17)	.1091636E+00	.2035267E+00	.8169542E-01	.2280832E+00
X(42)	.1000000E+01	.9039057E+00	.7697376E+00	-.1515145E+00
X(46)	.9039057E+00	.1000000E+01	.6986710E+00	-.1089439E+00
X(36)	.7697376E+00	.6986710E+00	.1000000E+01	-.2751341E+00
MACH	-.1515145E+00	-.1089439E+00	-.2751341E+00	.1000000E+01

SUMS OF SQUARES AND CROSS PRODUCT MATRIX  
FOR TOTAL.

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	X(7)	X(19)	DC	X(18)	X(6)	X(16)	X(26)	X(10)
X(7)	.4793771E+04	.1043505E+06	-.2704321E+05	.9919502E+04	.9848778E+03	.1703276E+04	.1483595E+04	-.5707330E+06
X(19)	.1043505E+06	.1035658E+09	.1890133E+08	.3480512E+08	.3130858E+05	.4156654E+05	.8100922E+05	-.3355968E+08
DC	-.2704321E+05	.1890133E+08	.6953701E+07	.8547689E+07	.4158464E+04	.8583821E+04	.4695516E+05	.7304553E+06
X(18)	.9919502E+04	.3480512E+08	.8547689E+07	.1340366E+08	.7763070E+04	.4618775E+04	.3017469E+04	-.6408193E+07
X(6)	.9848778E+03	.3130858E+05	.4158464E+04	.7763070E+04	.2522796E+03	.3399966E+03	.1157518E+04	.8771725E+05
X(16)	.1703276E+04	.4156654E+05	.8583821E+04	.4618775E+04	.3399966E+03	.6197782E+03	.6040495E+03	-.2561102E+06
X(26)	.1483595E+04	.8100922E+05	.4695516E+05	.3017469E+04	.1157518E+04	.6040495E+03	.6103293E+06	.7565439E+06
X(10)	-.5707330E+06	.3355968E+08	.7304553E+06	-.6408193E+07	.8771725E+05	-.2561102E+06	.7565439E+06	.6262139E+09
X(8)	.2599576E+02	.1561472E+04	.3298859E+02	.2854874E+03	.3848251E+01	.1218555E+02	.2809813E+02	.2526106E+05
X(27)	.1483326E+05	.1034981E+06	-.2198287E+06	.8358828E+05	.4560356E+04	.5676246E+04	.1641859E+07	-.4271387E+07
X(11)	-.3840816E+07	.2829622E+10	.1030328E+10	.1247049E+10	-.6030044E+06	-.1221619E+07	.1092119E+08	.6555631E+08
X(23)	.3605993E+08	.1471759E+11	.2715552E+10	.4934932E+10	.8684268E+07	.1342017E+08	.3271026E+08	.7073711E+10
X(13)	-.3321631E+07	.2093895E+09	.6593190E+07	.4300015E+08	.5198935E+06	-.1069325E+07	.3459704E+09	.7992721E+08
X(28)	-.1044625E+04	.5704421E+05	-.2080827E+04	-.1173216E+05	-.1548803E+03	.3207467E+03	.1277309E+06	-.2024560E+06
X(25)	-.1160664E+11	.2326929E+13	.1284998E+13	.1336754E+13	.1889633E+10	-.4480917E+10	.2541250E+11	.7508638E+13
X(20)	-.7237611E+04	.6721869E+07	.2237054E+07	.2800970E+07	-.1093656E+04	-.2117929E+04	.1269400E+05	.1634910E+07
X(14)	.3610340E+03	.1266430E+05	-.1266236E+04	.2964579E+04	.8719933E+02	.1299950E+03	.4154456E+03	.5905502E+05
X(30)	.5212874E+07	.6171939E+07	.5913285E+08	.1736527E+08	.1968773E+07	.1916919E+07	.5394274E+09	.1130817E+10
DT	-.3844440E+04	-.2145199E+06	.8707792E+04	-.4550813E+05	.5798700E+03	-.1264658E+04	.3913697E+06	-.1161539E+05
X(15)	.2636386E+07	.2525062E+08	.3507974E+08	-.1615535E+08	.7251334E+06	.6993845E+06	.1178206E+07	.9091233E+09
X(43)	.3098045E+05	.4030160E+09	.1123828E+09	.1743591E+09	.1109580E+06	.5223637E+05	.6506353E+08	.3010919E+09
X(21)	-.6461647E+08	.1760463E+11	.8561461E+10	.9373668E+10	-.1060610E+08	.2382518E+08	.1368529E+09	.3360646E+11
X(47)	.1969442E+08	.4718507E+11	.1448328E+11	.2244469E+11	.2652919E+08	.1220768E+08	.1618707E+11	.4949246E+11
X(31)	.3223918E+08	.1805105E+09	.3176162E+09	.8073539E+08	.7810861E+07	.1189924E+08	.1423124E+10	.6331621E+10
X(42)	-.1926802E+08	.1666799E+09	.5901661E+08	.8245830E+08	.1694865E+05	-.5331218E+05	.2830665E+08	.8594521E+08
X(46)	-.3497489E+08	.2099391E+11	.8281278E+10	.1141680E+11	.4772072E+07	-.1057032E+08	.6601164E+10	.1256195E+11
X(36)	-.4820306E+09	.1641696E+12	.7411658E+11	.8293394E+11	-.7970977E+08	-.1550256E+09	.1702339E+11	.1869635E+11
MACH	.1258247E+03	-.8670245E+04	-.3466487E+04	-.3415635E+04	.2742338E+02	.4192448E+02	-.1004833E+03	.4201198E+03

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	X( 8)	X(27)	X(11)	X(23)	X(13)	X(28)	X(25)	X(20)
X( 7)	.2599576E+02	.1483326E+05	-.3840816E+07	.3605993E+08	-.3321631E+07	-.1044625E+04	-.1160664E+11	-.7237611E+04
X(19)	.1561472E+04	-.1034981E+06	.2829622E+10	.1471759E+11	-.2093895E+09	-.5704421E+05	.2326929E+13	.6721869E+07
DC	.3299859E+02	-.2198287E+06	.1030328E+10	.2715552E+10	-.6593190E+07	-.2080827E+04	.1264998E+13	.2237054E+07
X(18)	.2854874E+03	-.8258828E+05	.1247049E+10	.4934932E+10	-.4300015E+08	-.1173216E+05	.1336754E+13	.2800970E+07
X( 6)	.3848251E+01	.4560356E+04	-.6030044E+06	.8684268E+07	-.5198935E+06	-.1548803E+03	-.1889633E+10	-.1093656E+04
X(16)	.1218555E+02	.5676246E+04	-.1221619E+07	.1342017E+08	-.1069325E+07	-.3207467E+03	-.4480917E+10	-.2117929E+04
X(26)	.2809813E+02	.1641859E+07	-.1092119E+08	.3271026E+08	.3459704E+09	.1277309E+06	-.2541250E+11	-.1269400E+05
X(10)	-.2526106E+05	-.4271387E+07	-.6555631E+08	-.7073711E+10	-.7992721E+08	-.2024560E+06	.7508638E+13	-.1634910E+07
X( 8)	.1191536E+01	.1826913E+03	.3490601E+04	.3289201E+06	.1491286E+04	.8587426E+01	-.3026885E+09	.7709861E+02
X(27)	.1826913E+03	.4998074E+07	-.4603330E+08	-.4676125E+08	.8305621E+09	.3192509E+06	-.1049553E+12	-.5982815E+05
X(11)	.3490601E+04	-.4603330E+08	.1847553E+12	.4853400E+12	-.1776829E+10	-.1089135E+07	.2272649E+15	.3314744E+09
X(23)	.3289201E+06	-.4676125E+08	.4853400E+12	.2677092E+13	-.5292745E+11	-.1791148E+08	.3763295E+15	.9269513E+09
X(13)	.1491286E+04	.8305621E+09	-.1776829E+10	-.5292745E+11	.3164296E+12	.8914064E+08	-.2718908E+13	-.2142154E+07
X(28)	.8587426E+01	.3192509E+06	-.1089135E+07	-.1791148E+08	.8914064E+08	.3281734E+05	-.4125519E+10	-.1074784E+03
X(25)	-.3026885E+09	-.1049553E+12	.2272649E+15	.3763295E+15	-.2718908E+13	-.4125519E+10	.5231035E+18	.3558633E+12
X(20)	-.7709861E+02	.5982815E+05	.3314744E+09	.9269513E+09	-.2142154E+07	-.1074784E+03	.3558633E+12	.7341935E+06
X(14)	.2755253E+01	.1765914E+04	-.1852717E+06	.3348404E+07	-.1625730E+06	.3975952E+02	-.9516507E+09	-.2506204E+03
X(30)	.4635364E+05	.1435312E+10	-.1057339E+11	.5184520E+10	.3909749E+12	.1125434E+09	-.2636593E+14	-.1630654E+08
DT	-.2676237E+01	.9550417E+06	-.3428532E+07	-.6149547E+08	.2769169E+09	.9968952E+05	-.6538034E+10	-.2498725E+04
X(15)	-.4053791E+05	-.5485277E+06	-.4882203E+10	.8895757E+10	-.4234256E+10	-.1618370E+07	.2184446E+13	-.1266795E+08
X(43)	-.1153368E+05	.1675569E+09	-.1458336E+11	.4562796E+11	.3542742E+11	.1398316E+08	.1031478E+14	.3786527E+08
X(21)	-.1359345E+07	-.5571785E+09	.1270212E+13	.2201406E+13	-.1890384E+11	-.1934148E+08	.2823500E+16	.2447323E+10
X(47)	.1766865E+07	.4491637E+11	.2456881E+13	.7374543E+13	.8515578E+13	.3338185E+10	.1657420E+16	.4907079E+10
X(31)	.2808243E+06	.4316721E+10	-.5428748E+11	.9592939E+11	.9186093E+12	.2742701E+09	-.1338209E+15	-.8763011E+08
X(42)	.2720115E+04	.6392228E+08	.8241867E+10	.1991300E+11	.1746955E+11	.6508061E+07	.8133066E+13	.1928980E+08
X(46)	.3335584E+06	.1597097E+11	.1447093E+13	.3321480E+13	.3953890E+13	.1466631E+10	.1423565E+16	.2708161E+10
X(36)	.3357611E+06	.3317839E+11	.1100168E+14	.2075684E+14	.1749992E+14	.4933482E+10	.1351111E+17	.2375661E+11
MACH	-.3323823E-01	.2786135E+02	-.4780499E+06	-.3128288E+06	-.2001088E+06	-.7125788E+02	-.5918309E+09	-.1112775E+04

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	X(14)	X(30)	DT	X(15)	X(43)	X(21)	X(47)	X(31)
X( 7)	.3610340E+03	.5212874E+07	-.3844440E+04	.2636386E+07	.3098045E+05	-.6461647E+08	.1969442E+08	.322916E+08
X(19)	.1266430E+05	.6171939E+07	-.2145199E+06	-.2525062E+08	.4030160E+09	.1760463E+11	.4718507E+11	.1605105E+09
DC	-.1266236E+04	-.5913285E+08	-.8707792E+04	-.3507974E+08	.1123828E+09	.8561461E+10	.1448328E+11	-.3176162E+09
X(18)	.2964579E+04	.1736527E+08	-.4550813E+05	-.1615535E+08	.1743591E+09	.9373668E+10	.2244469E+11	-.8072539E+08
X( 6)	.8719933E+02	.1968773E+07	-.5798700E+03	.7251334E+06	.1109580E+06	-.1060610E+08	.2652919E+08	.7810861E+07
X(16)	.1299950E+03	.1916919E+07	-.1264658E+04	.6993845E+06	.5223637E+05	-.2382518E+08	.1220768E+08	.1188924E+08
X(26)	.4154456E+03	.5394274E+09	.3913697E+06	-.1178206E+07	.6506353E+08	.1368529E+09	.1618707E+11	.1423124E+10
X(10)	-.5905502E+05	-.1130817E+10	-.1161539E+05	.9091233E+09	-.3010919E+09	.3360646E+11	-.4949246E+11	-.6331621E+10
X( 8)	.2755253E+01	.4635364E+05	-.2676237E+01	-.4053791E+05	.1153368E+05	.1359345E+07	.1766865E+07	.2808243E+06
X(27)	.1763914E+04	.1435312E+10	.9550417E+06	-.5485277E+06	.1675569E+09	-.5571785E+09	.4491637E+11	.4316721E+10
X(11)	-.1852717E+06	-.1057339E+11	-.3428532E+07	-.4882203E+10	.1458336E+11	.1270212E+13	.2456881E+13	-.5428748E+11
X(23)	.3345404E+07	.5184520E+10	-.6149547E+08	.8895757E+10	.4562796E+11	.2201406E+13	.7374543E+13	.3592939E+11
X(13)	-.1625730E+06	.3909749E+12	.2769169E+09	-.4234256E+10	.3542742E+11	-.1890384E+11	.8515578E+13	.9196093E+12
X(28)	-.3975952E+02	.1125434E+09	.9968952E+05	-.1618370E+07	.1398316E+08	-.1934148E+08	.3338185E+10	.2742701E+09
X(25)	-.9516507E+09	-.2636593E+14	-.6538034E+10	.2184446E+13	.1031478E+14	.2823500E+16	.1657420E+16	-.1338209E+15
X(20)	-.2506204E+03	-.1630654E+08	-.2498725E+04	-.1266795E+08	.3786527E+08	.2447323E+10	.4907079E+10	-.8763011E+08
X(14)	.3231351E+02	.7070282E+06	-.1896185E+03	.1703141E+06	.5334876E+05	-.4888473E+07	.1113759E+08	.2979633E+07
X(30)	.7070282E+06	.6120704E+12	.3439017E+09	.1148888E+10	.5555451E+11	-.1507461E+12	.1378488E+14	.1607106E+13
DT	-.1896185E+03	.3439017E+09	.3099780E+06	-.4375439E+07	.4131902E+08	-.3430907E+08	.9947465E+10	.8158288E+09
X(15)	.1703141E+06	.1148888E+10	-.4375439E+07	.6167920E+10	-.9182376E+09	-.1350897E+11	-.1223348E+12	.8489830E+10
X(43)	.5334876E+05	.5555451E+11	.4131902E+08	-.9182376E+09	.4747346E+11	.8992332E+11	.7246903E+13	.1389644E+12
X(21)	-.4888473E+07	-.1507461E+12	.3430907E+08	-.1350897E+11	.8992332E+11	.1812975E+14	.1027581E+14	.7380018E+12
X(47)	.1113759E+08	.1378488E+14	.9947465E+10	.1223348E+12	.7246903E+13	.1027581E+14	.1393380E+16	.3714722E+14
X(31)	.2979633E+07	.1607106E+13	.8158288E+09	.8489830E+10	.1389644E+12	-.7380018E+12	.3714722E+14	.4836697E+13
X(42)	.9564912E+04	.2466889E+11	.1983101E+08	-.4837819E+09	.1731670E+11	.6066037E+11	.2706010E+13	.5338804E+11
X(46)	.1990630E+07	.5750829E+13	.4489457E+10	-.7201367E+11	.2707496E+13	.8225837E+13	.5190762E+15	.1335877E+14
X(36)	-.2478515E+08	.1910703E+14	.1531271E+11	-.6219487E+12	.9742041E+13	.9071681E+14	.1528866E+16	.3573678E+14
MACH	.8937985E+01	.1282246E+05	-.2195274E+03	.1217902E+06	-.6924339E+05	-.4314064E+07	-.9344784E+07	.5177181E+06

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	X(42)	X(46)	X(36)	MACH
X(7)	-1926802E+06	-3497489E+08	-4820306E+09	-1258247E+03
X(19)	-1666799E+09	2099391E+11	-1641696E+12	-5870245E+04
DC	-5901561E+08	8281278E+10	-7411658E+11	-3466487E+04
X(18)	-8245830E+08	-1141680E+11	-8293394E+11	-3415635E+04
X(6)	-1694865E+05	-4772072E+07	-7970977E+08	-2742338E+02
X(16)	-5331218E+05	-1057032E+08	-1550256E+09	-4192448E+02
X(26)	-2830665E+08	-6601164E+10	-1702339E+11	-1004833E+03
X(10)	-8594521E+08	-1256195E+11	-1869635E+11	-4201198E+03
X(8)	-2720115E+04	-3335584E+06	-3357611E+06	-3323823E-01
X(27)	-6392228E+08	-1597097E+11	-3317839E+11	-2786135E+02
X(11)	-8241867E+10	-1447093E+13	-1100168E+14	-4790499E+06
X(23)	-1991300E+11	-3321480E+13	-2075684E+14	-3128288E+06
X(13)	-1746955E+11	-3953890E+13	-1749992E+14	-2001088E+06
X(28)	-6508061E+07	-1466631E+10	-4933482E+10	-7125788E+02
X(25)	-8133066E+13	-1423565E+16	-1351111E+17	-5919309E+09
X(20)	-1928980E+08	-2708161E+10	-2375661E+11	-1112775E+04
X(14)	-9564913E+04	-1990630E+07	-2478515E+08	-8937685E+01
X(30)	-2466889E+11	-5750839E+13	-1910703E+14	-1262246E+05
DT	-1983101E+08	-4489457E+10	-1531271E+11	-2195274E+03
X(15)	-4837819E+05	-7201367E+11	-6219487E+12	-1217902E+06
X(43)	-1731670E+11	-2707496E+13	-9742041E+13	-6924339E+05
X(21)	-6066037E+11	-8225837E+13	-9071681E+14	-4314064E+07
X(47)	-2706010E+13	-5190762E+15	-1528866E+16	-9344784E+07
X(31)	-5338804E+11	-1335877E+14	-3573678E+14	-5177181E+06
X(42)	-7194998E+10	-1153694E+13	-4598041E+13	-3761396E+05
X(46)	-1153694E+13	-2209933E+15	-7438717E+15	-5678746E+07
X(36)	-4598041E+13	-7438717E+15	-4630851E+16	-4696204E+08
MACH	-3761396E+05	-5678746E+07	-4696204E+08	-5006711E+01

SUMS OF SQUARES AND CROSS PRODUCT MATRIX  
FOR TREATMENT.

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	X(7)	X(19)	DC	X(18)	X(6)	X(16)	X(26)	X(10)
X(7)	-4399930E+02	-2631543E+04	-1705825E+03	-6197610E+03	-6683178E+01	-1474655E+02	-4164359E+04	-1375818E+04
X(19)	-2631543E+04	-1573892E+06	-1020232E+05	-3706712E+05	-3997124E+03	-8819724E+03	-2490551E+06	-8228596E+05
DC	-1705825E+03	-1020232E+05	-6613376E+03	-2402774E+04	-2591026E+02	-5717143E+02	-1614496E+05	-5333961E+04
X(18)	-6197610E+03	-3706712E+05	-2402774E+04	-8729769E+04	-9413725E+02	-2077155E+03	-5865792E+05	-1937937E+05
X(6)	-6683178E+01	-3997124E+03	-2591026E+02	-9413725E+02	-1015127E+01	-2238895E+01	-6325363E+03	-2089769E+03
X(16)	-1474655E+02	-8819724E+03	-5717143E+02	-2077155E+03	-2238895E+01	-4942366E+01	-1395702E+04	-4611112E+03
X(26)	-4164359E+04	-2490551E+06	-1614496E+05	-5865792E+05	-6325363E+03	-1395702E+04	-3941401E+06	-1302158E+06
X(10)	-1375818E+04	-8228596E+05	-5333961E+04	-1937937E+05	-2089769E+03	-4611112E+03	-1302158E+06	-4302060E+05
X(8)	-8594537E-01	-5140284E+01	-3332048E+00	-1210601E+01	-1305449E-01	-2880495E-01	-8134388E+01	-2687434E+01
X(27)	-1013161E+05	-6059589E+06	-3927962E+05	-1427109E+06	-1538919E+04	-3395652E+04	-9589169E+06	-3168064E+06
X(11)	-4814217E+05	-2879323E+07	-1866442E+06	-6781163E+06	-7312451E+04	-1613505E+05	-4556466E+07	-1505362E+07
X(23)	-6880082E+06	-4114890E+08	-2667364E+07	-9691079E+07	-1045035E+06	-2305888E+06	-6511725E+08	-2151340E+08
X(13)	-2647731E+07	-1583575E+09	-1026509E+08	-3729515E+08	-4021714E+06	-8873980E+06	-2505972E+09	-8279216E+08
X(28)	-1060748E+04	-6344200E+05	-4112453E+04	-1494138E+05	-1611200E+03	-3555141E+03	-1003956E+06	-3316863E+05
X(25)	-8617886E+08	-5154249E+10	-3341100E+09	-1213890E+10	-1308995E+08	-2888320E+08	-8156487E+10	-2694735E+10
X(20)	-5020044E+02	-3002425E+04	-1946239E+03	-7071084E+03	-7625087E+01	-1682488E+02	-4751272E+04	-1569722E+04
X(14)	-2279506E+01	-1363344E+03	-8837501E+01	-3210844E+02	-3462406E+00	-7639858E+00	-2157462E+03	-7127810E+02
X(30)	-3290738E+07	-1968149E+09	-1275798E+08	-4635235E+08	-4998395E+06	-1102904E+07	-3114553E+09	-1028994E+09
DT	-3300777E+04	-1974153E+06	-1279690E+05	-4649376E+05	-5013644E+03	-1106269E+04	-3124055E+06	-1032123E+06
X(15)	-4318613E+05	-2582908E+07	-1674299E+06	-6083069E+06	-6559663E+04	-1447401E+05	-4087396E+07	-1350391E+07
X(43)	-4407905E+06	-2636312E+08	-1708917E+07	-6208843E+07	-6695291E+05	-1477327E+06	-4171907E+08	-1378312E+08
X(21)	-4839737E+06	-2894586E+08	-1876335E+07	-6817109E+07	-7351213E+05	-1622058E+06	-4580619E+08	-1513342E+08
X(47)	-1053419E+09	-6300365E+10	-4084038E+09	-1483814E+10	-1600068E+08	-3530575E+08	-9970191E+09	-3293945E+09
X(31)	-7811285E+07	-4671831E+09	-3028386E+08	-1100274E+09	-1186478E+07	-2617985E+07	-7393072E+09	-2442518E+09
X(42)	-2109098E+06	-1261425E+08	-8175842E+06	-2970813E+07	-3203569E+05	-7068731E+05	-1996178E+08	-654961E+07
X(46)	-4750835E+08	-2841414E+10	-1841869E+09	-6691884E+09	-7216177E+07	-1582262E+08	-4496477E+10	-1485543E+10
X(36)	-1462717E+09	-8748325E+10	-5670861E+09	-2060339E+10	-2221762E+08	-4902356E+08	-1384404E+11	-4573784E+10
MACH	-2355607E+01	-1408859E+03	-9132540E+01	-3318038E+02	-3577998E+00	-7894915E+00	-2229489E+03	-7365771E+02

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	X(8)	X(27)	X(11)	X(23)	X(13)	X(28)	X(25)	X(20)
X(7)	.8594537E-01	-.1013161E+05	.4814217E+05	.6880082E+06	-.2647731E+07	-.1060748E+04	.8617388E+08	.5020044E+02
X(19)	.5140284E+01	-.6059589E+06	.2879323E+07	.4114890E+08	-.1583575E+09	-.6344200E+05	.5154249E+10	.3002425E+04
DC	.3332048E+00	-.3927962E+05	.1866442E+06	.2667364E+07	-.1026509E+08	-.4112453E+04	.3341100E+09	.1946239E+04
X(18)	.1210601E+01	-.1427109E+06	.6781163E+06	.9691079E+07	-.3729515E+08	-.1494138E+05	.1213890E+10	.7071084E+03
X(6)	.1305448E-01	-.1538919E+04	.7312451E+04	.1045035E+06	-.4021714E+06	-.1611200E+03	.1308995E+08	.7625087E+01
X(16)	.2880495E-01	-.3395652E+04	.1613505E+05	.2305888E+06	-.8873980E+06	-.3555141E+03	.2888320E+08	.1682488E+02
X(26)	-.8134388E+01	.9589169E+06	-.4556466E+07	-.6511725E+08	.2505972E+09	.1003956E+06	-.8156487E+10	-.4751272E+04
X(10)	-.2687434E+01	.3168064E+06	-.1505362E+07	-.2151340E+08	.8279216E+08	.3316863E+05	-.2694735E+10	-.1569722E+04
X(8)	.1678801E-03	-.1979043E+02	.9403779E+02	.1343910E+04	-.5171906E+04	-.2071996E+01	.1683362E+06	.9805828E-01
X(27)	-.1979043E+02	.2332982E+07	-.1108558E+08	-.1584260E+09	.6096866E+09	.2442559E+06	-.1984420E+11	-.1155953E+05
X(11)	.9403779E+02	-.1108558E+08	.5267513E+08	.7527895E+09	-.2897036E+10	-.1160626E+07	.9429327E+11	.5492720E+05
X(23)	.1343910E+04	-.1584260E+09	.7527895E+09	.1075825E+11	-.4140204E+11	-.1658670E+08	.1347562E+13	.7849742E+06
X(13)	-.5171906E+04	.6096866E+09	-.2897036E+10	-.4140204E+11	.1593316E+12	.6383228E+08	-.5185956E+13	-.3020895E+07
X(28)	-.2071996E+01	.2442559E+06	-.1160626E+07	-.1658670E+08	.6383228E+08	.2557283E+05	-.2077625E+10	-.1210247E+04
X(25)	.1683362E+06	-.1984420E+11	.9429327E+11	.1347562E+13	-.5185956E+13	-.2077625E+10	.1687935E+15	.9832467E+08
X(20)	.9805828E-01	-.1155953E+05	.5492720E+05	.7849742E+06	.3020895E+07	-.1210247E+04	.9832467E+08	.5727555E+02
X(14)	.4452639E-02	-.5248963E+03	.2494139E+04	.3564418E+05	-.1371731E+06	-.5495500E+02	.4464735E+07	.2600773E+01
X(30)	-.6427913E+04	.7577502E+09	-.3600586E+10	-.5145661E+11	.1980256E+12	.7933408E+08	-.6445376E+13	-.3754526E+07
DT	-.6447523E+01	.7600620E+06	-.3611571E+07	-.5161359E+08	.1986298E+09	.7957611E+05	-.6465040E+10	-.3765980E+04
X(15)	.8435698E+02	-.9944365E+07	.4725244E+08	.6752928E+09	-.2598797E+10	-.1041144E+07	.8458615E+11	.4927266E+05
X(43)	-.8610114E+03	.1014998E+09	-.4822943E+09	-.6892552E+10	.2652530E+11	.1062671E+08	-.8633506E+12	.5029143E+06
X(21)	.9453627E+03	-.1114434E+09	.5295436E+09	.7567799E+10	-.2912392E+11	-.1166778E+08	.9479310E+12	.5521836E+06
X(47)	-.2057680E+06	.2425682E+11	-.1152606E+12	-.1647210E+13	.6339123E+13	.2539613E+10	-.2063270E+15	-.1201885E+09
X(31)	-.1525806E+05	.1798686E+10	-.8546778E+10	-.1221435E+12	.4700571E+12	.1883168E+09	-.1529951E+14	-.8912187E+07
X(42)	-.4119776E+03	.4856570E+08	-.2307686E+09	-.3297955E+10	.1269185E+11	.5084677E+07	-.4130968E+12	.2406349E+06
X(46)	-.9279972E+05	.1093963E+11	-.5198163E+11	-.7428785E+12	.2858894E+13	.1145345E+10	-.9305183E+14	-.5420405E+08
X(36)	-.2857175E+06	.3368163E+11	-.1600443E+12	-.2287221E+13	.8802143E+13	.3526361E+10	-.2864938E+15	-.1668868E+09
MACH	.4601290E-02	-.5424200E+03	.2577406E+04	.3683416E+05	-.1417526E+06	-.5678967E+02	.4613790E+07	.2687600E+01

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	X(14)	X(20)	DT	X(15)	X(43)	X(21)	X(47)	X(31)
X(7)	.2279506E+01	-.3290738E+07	-.3300777E+04	.4318613E+05	-.4407905E+06	.4839737E+08	-.1052419E+09	-.7811285E+07
X(19)	.1363344E+03	-.1968149E+09	-.1974153E+06	.2582908E+07	-.2636312E+08	.2894586E+08	-.6300365E+10	-.4671831E+09
DC	.8837501E+01	-.1275798E+08	-.1279690E+05	.1674299E+06	-.1708917E+07	.1876335E+07	-.4084038E+09	-.3028386E+08
X(18)	.3210844E+02	-.4635235E+08	-.4649376E+05	.6083069E+06	-.6208843E+07	.6817109E+07	-.1483814E+10	-.1100274E+06
X(6)	.3462406E+00	-.4998395E+06	-.5013644E+03	.6559663E+04	-.6695291E+05	.7351213E+05	-.1600068E+08	-.1186478E+07
X(16)	.7839858E+00	-.1102904E+07	-.1106269E+04	.1447401E+05	-.1477327E+06	.1622058E+06	-.3530576E+08	-.2617985E+07
X(26)	-.2157482E+03	.3114553E+09	.3124055E+06	-.4087398E+07	.1378312E+08	-.1513342E+08	.3293945E+10	.7293072E+09
X(10)	-.7127810E+02	.1028984E+09	.1032123E+06	-.1350391E+07	.1378312E+08	-.1513342E+08	.3293945E+10	.7293072E+09
X(8)	.4452639E-02	-.6427913E+04	-.6447523E+01	.8435698E+02	-.8610114E+03	.9453627E+03	-.2057680E+06	-.1525806E+05
X(27)	-.5248963E+03	.7577502E+09	.7600620E+06	-.9944365E+07	.1014998E+09	-.1114434E+09	.2425682E+11	.1798686E+10
X(11)	.2494139E+04	-.3600586E+10	-.3611571E+07	.4725244E+08	-.4822943E+09	.5295436E+09	-.1152606E+12	-.8546778E+10
X(23)	.1343910E+04	-.1584260E+09	-.1561359E+08	.6752928E+09	-.6892552E+10	.7567799E+10	-.1647210E+13	-.1221435E+12
X(13)	-.5171906E+04	.6096866E+09	.1986298E+09	-.2598797E+10	.2652530E+11	-.2912392E+11	.6339123E+13	.4700571E+12
X(28)	-.2071996E+01	.2442559E+06	.7957611E+05	-.1041144E+07	.1062671E+08	-.1166778E+08	.2539613E+10	.1883168E+09
X(25)	.1683362E+06	-.1984420E+11	.6465040E+10	.8458615E+11	-.8633506E+12	.9479310E+12	-.2063270E+15	-.1529951E+14
X(20)	.9805828E-01	-.1155953E+05	.3765980E+04	.4927266E+05	-.5029143E+06	.5521836E+06	-.1201885E+09	.8912187E+07
X(14)	-.1180961E+00	-.1704858E+06	-.1710059E+03	.2237377E+04	-.2283638E+05	.2507360E+05	-.5457529E+07	-.4046854E+06
X(30)	-.6427913E+04	.7577502E+09	.7600620E+06	-.9944365E+07	.1014998E+09	-.1114434E+09	.2425682E+11	.1798686E+10
DT	-.6447523E+01	.7600620E+06	.2476205E+06	-.3229920E+10	.3296702E+11	-.3619673E+11	.7878592E+13	.5842114E+12
X(15)	-.2237377E+04	.3229920E+10	.3239774E+07	-.4238799E+08	-.4326440E+09	.4750292E+09	-.1033950E+12	.7666921E+10
X(43)	-.2283638E+05	.3296702E+11	.3306760E+08	.4236440E+09	.4415894E+10	-.4848509E+10	-.1055328E+13	.7825443E+11
X(21)	-.2507360E+05	-.3619673E+11	-.3620715E+08	.4750292E+09	-.4848509E+10	.5023506E+10	-.1158716E+13	.8592084E+11
X(47)	-.5457529E+07	.7878592E+13	.7902627E+10	-.1033950E+12	.1055328E+13	-.1158716E+13	.2522065E+15	.1870156E+14
X(31)	-.4046854E+06	.5842114E+12	.5859937E+09	.7666921E+10	.7825443E+11	-.8592084E+11	.1870156E+14	.1386753E+13
X(42)	-.1092677E+05	.1577409E+11	.1582222E+08	-.2070119E+09	.2112921E+10	-.2319919E+10	.5049544E+12	.3744326E+11
X(46)	-.2461302E+07	.3553182E+13	.3564022E+10	-.4663033E+11	.4759446E+12	-.5225718E+12	.1137431E+15	.8434254E+12
X(36)	-.7578012E+07	.1093976E+14	.1097314E+11	-.1435684E+12	.1465368E+13	-.1608927E+13	.3501995E+15	.2596791E+14
MACH	.1220388E+00	-.1761775E+06	-.1767150E+03	.2312072E+04	-.2359877E+05	.2591068E+05	-.5639728E+07	-.4181957E+06

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	X(42)	X(46)	X(36)	MACH
X(7)	-.2109098E+06	-.4750835E+08	-.1462717E+09	.2355607E+01
X(19)	-.1261425E+08	-.2841414E+10	-.8748325E+10	.1408859E+03
DC	-.8176842E+06	-.1841869E+09	-.5670861E+09	.9132540E+01
X(18)	-.2970813E+07	-.6691884E+09	-.2060339E+10	.3318038E+02
X(6)	-.3203569E+05	-.7216177E+07	-.2221762E+08	.3577998E+00
X(16)	-.7068731E+05	-.1592262E+08	-.4902356E+08	.7894915E+00
X(26)	-.1996178E+08	-.4496477E+10	-.1384404E+11	-.2229489E+03
X(10)	-.6594961E+07	-.1485543E+10	-.4573784E+10	-.7365771E+02
X(8)	-.4119776E+03	-.9279972E+05	-.2857176E+06	.4601290E-02
X(27)	-.4856570E+08	-.1093963E+11	-.3368163E+11	-.5424200E+03
X(11)	-.2307686E+09	-.5198163E+11	-.1600443E+12	.2577406E+04
X(23)	-.3297955E+10	-.7428785E+12	-.2287221E+13	.3683416E+05
X(13)	-.1269185E+11	-.2858894E+13	-.8802143E+14	-.1417526E+06
X(28)	-.5094677E+07	-.1145345E+10	-.3526361E+10	-.5678967E+02
X(25)	-.4130988E+12	-.9305183E+14	-.2854938E+15	.4613790E+07
X(20)	-.2406348E+06	-.5420405E+08	-.1668868E+09	.2687600E+01
X(14)	-.1092677E+05	-.2461302E+07	-.7578012E+07	.1220388E+00
X(30)	-.1577409E+11	-.3553182E+13	-.1093976E+14	-.1761775E+06
DT	-.1582222E+08	-.3564022E+10	-.1097314E+11	-.1761750E+03
X(15)	-.2670119E+09	-.4663033E+11	-.1435684E+12	.2312072E+04
X(43)	-.2112921E+10	-.4759446E+12	-.1465368E+13	-.2359877E+05
X(21)	-.2319919E+10	-.5225718E+12	-.1608927E+13	.2591068E+05
X(47)	-.5049544E+12	-.1137431E+15	-.3501985E+15	-.5629728E+07
X(31)	-.374326E+11	-.8434254E+13	-.2596791E+14	-.4181957E+06
X(42)	-.1010993E+10	-.2277304E+12	-.7011507E+12	-.1129156E+05
X(46)	-.2277304E+12	-.5129725E+14	-.1579372E+15	-.2543473E+07
X(36)	-.7011507E+12	-.1579372E+15	-.4862670E+15	-.7831003E+07
MACH	-.1129156E+05	-.2543473E+07	-.7831003E+07	.1261130E+00

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SUMS OF SQUARES AND CROSS PRODUCT MATRIX  
FOR ERROR.

	X(7)	X(19)	DC	X(18)	X(6)	X(16)	X(26)	X(10)
X(7)	.4749712E+04	.1017190E+06	-.2721379E+05	.9299741E+04	.9781947E+03	.1688530E+04	.5647954E+04	-.5693571E+06
X(19)	.1017190E+06	.1034084E+09	.1989113E+08	.3476806E+08	.3090887E+05	.4068456E+05	.1680558E+06	-.3347739E+08
DC	-.2721379E+05	.1989113E+08	.6953040E+07	.8545286E+07	-.4184374E+04	-.8640992E+04	-.3081020E+05	-.7251213E+06
X(18)	.9299741E+04	.3476806E+08	.8545286E+07	.1033949E+08	.7668933E+04	.4411060E+04	.5564045E+05	-.6388813E+07
X(6)	.9781947E+03	.3090887E+05	-.4184374E+04	.7668933E+04	.2512644E+03	.3377567E+03	.1790055E+04	-.8750828E+05
X(16)	.1688530E+04	.4068456E+05	-.8640992E+04	.4411060E+04	.3377567E+03	.6148358E+03	.1999752E+04	-.2556491E+06
X(26)	.5647954E+04	.1680558E+06	-.3081020E+05	.5564045E+05	.1790055E+04	.1999752E+04	.2161892E+06	-.8867596E+06
X(10)	-.5693571E+06	-.3347739E+08	-.7251213E+06	-.6388813E+07	-.8750828E+05	-.2556491E+06	-.8867596E+06	.6261708E+09
X(8)	-.2580981E+02	.1556331E+04	.3266519E+02	.2842768E+03	.3835197E+01	.1215674E+02	.3623252E+02	-.2525837E+05
X(27)	-.2486488E+05	.5024608E+06	-.1805491E+06	.5912258E+05	.6098927E+04	.9071897E+04	.6829423E+06	-.4588193E+07
X(11)	-.3888958E+07	.2826743E+10	.1030141E+10	.1246370E+10	-.6103168E+06	-.1237754E+07	-.6364727E+07	-.6405095E+08
X(23)	-.3537192E+08	.1467644E+11	.2712884E+10	.4825241E+10	.8579765E+07	.1318958E+08	.3240699E+08	-.7052198E+10
X(13)	-.6739001E+06	-.5103202E+08	.3671897E+07	-.5704899E+07	-.1177221E+06	-.1819265E+06	.9537315E+08	-.1627194E+09
X(28)	-.1612346E+02	.6397790E+04	.2031626E+04	.3209222E+04	.6239728E+01	.3476734E+02	.2733331E+05	-.2356246E+06
X(25)	-.1169282E+11	.2321775E+13	.1264664E+13	.1335540E+13	-.1902723E+10	-.4509800E+10	-.1725601E+11	.7511333E+13
X(20)	-.7287811E+04	.6718867E+07	.2236860E+07	.2800263E+07	-.1101281E+04	-.2134754E+04	.7942732E+04	-.1633340E+07
X(14)	-.3587545E+03	.1252797E+05	.1275074E+04	.2932471E+04	.8685309E+02	.1292310E+03	.6311918E+03	-.5898374E+05
X(30)	.8503612E+07	.2029868E+09	-.4637487E+08	.6371763E+08	.2468613E+07	.3019824E+07	.2279721E+09	-.1233715E+10
DT	-.5436630E+03	.1710460E+05	.4089113E+04	.9856285E+03	-.7850567E+02	-.1583890E+03	.7896419E+05	-.1148277E+06
X(15)	.2593199E+07	-.2783353E+08	-.3524717E+08	-.1676366E+08	.7185738E+06	.6849105E+06	.2909190E+07	.9104736E+09
X(43)	.4717709E+06	.4293791E+09	.1140918E+09	.1805679E+09	.1779110E+06	.1999691E+06	.2334446E+08	.3148750E+09
X(21)	-.6510045E+08	.1757569E+11	.8559585E+10	.9366851E+10	-.1067961E+08	-.2398739E+08	.9104666E+08	.3362159E+11
X(47)	.1250363E+09	.5348544E+11	.1489168E+11	.2392850E+11	.4252987E+08	.4751344E+08	.6216882E+10	-.5278641E+11
X(31)	.4005044E+08	.6276936E+09	-.2873324E+09	.2929204E+08	.8997339E+07	.1451722E+08	.6838171E+09	.6575873E+10
X(42)	.1822966E+05	.1792941E+09	.5983420E+08	.8542911E+08	.4898434E+05	.1737513E+05	.8344867E+07	.9254017E+08
X(46)	.1253346E+08	.2383532E+11	.8465464E+10	.1208599E+11	.1198825E+08	.5352296E+07	.2104688E+10	-.1404750E+11
X(36)	-.3357589E+09	.1729179E+12	.7468366E+11	.8499428E+11	-.5749215E+08	-.1060020E+09	.3179354E+10	-.2327013E+11
MACH	.1234691E+03	-.7011131E+04	-.3475619E+04	-.3448816E+04	.2706558E+02	.4113499E+02	.1224656E+03	.4937775E+03



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	X( 8)	X(27)	X(11)	X(23)	X(13)	X(28)	X(25)	X(20)
X( 7)	.2590981E+02	.2496488E+05	-.3888958E+07	.3537192E+08	-.6739001E+06	.1612346E+02	-.1169282E+11	-.7287811E+04
X(19)	.1556331E+04	.5024608E+06	.2826743E+10	.1467644E+11	-.5103202E+08	.6397790E+04	.2321775E+13	.6718867E+07
DC	.3266539E+02	-.1805491E+06	.1020141E+10	.2712884E+10	.3671897E+07	.2031626E+04	.1264664E+13	.2236860E+07
X(18)	.2842768E+03	.5912258E+05	.1246370E+10	.4925241E+10	-.5704999E+07	.3209222E+04	.1335540E+13	.2800263E+07
X( 6)	.3835197E+01	.6099276E+04	-.6103168E+06	.8579755E+07	-.1177221E+06	.6239728E+01	-.1902723E+10	-.1101281E+04
X(16)	.1215674E+02	.9071897E+04	-.1237754E+07	.1318958E+08	-.1819265E+06	.3476734E+02	-.4509800E+10	-.2134754E+04
X(26)	.3623252E+02	.6829423E+06	-.6364727E+07	.3240699E+08	.9537315E+08	.2733531E+05	-.1725601E+11	-.7942732E+04
X(10)	-.2525837E+05	-.4588193E+07	-.6405095E+08	-.7052198E+10	-.1627194E+09	-.2356246E+06	.7511333E+13	-.1633340E+07
X( 8)	.1191369E+01	.2024818E+03	.3396564E+04	.3275762E+06	.6663191E+04	.1065942E+02	-.3028548E+09	.7700056E+02
X(27)	.2024818E+03	.2665092E+07	-.3494772E+08	.1116647E+09	.2208755E+09	.7499503E+05	-.8511109E+11	-.4826862E+05
X(11)	.3396564E+04	.3494772E+08	.1847026E+12	.4845872E+12	-.1120207E+10	.7149098E+05	.2271706E+15	.3314195E+09
X(23)	.3275762E+06	.1116647E+09	.4845872E+12	.2666334E+13	-.1152541E+11	-.1324775E+07	.3749819E+15	.9261663E+09
X(13)	.6663191E+04	.2208755E+09	.1120207E+10	-.1152541E+11	.1570980E+12	.2530836E+08	.2467048E+13	.8787407E+06
X(28)	.1065942E+02	.7499503E+05	.7149098E+05	-.1324775E+07	.2530836E+08	.7044514E+04	-.2047893E+10	.1102769E+04
X(25)	-.3028548E+09	.8511109E+11	.2271706E+15	.3749819E+15	.2467048E+13	-.2047893E+10	.5229347E+18	.3557650E+12
X(20)	.7700056E+02	-.4826862E+05	.3314195E+09	.9261663E+09	.8787407E+06	.1102769E+04	.3557650E+12	.7341363E+06
X(14)	.2750800E+01	.2288810E+04	-.1877659E+06	.3309760E+07	-.2539990E+05	.1519548E+02	-.9561155E+09	-.2532212E+03
DT	.3771287E+01	.6775621E+09	-.6972805E+10	.5664113E+11	.1929493E+12	.3320928E+08	-.1992055E+14	-.1255201E+08
X(30)	.5278155E+05	.6775621E+09	-.6972805E+10	.5664113E+11	.1929493E+12	.3320928E+08	-.1992055E+14	-.1255201E+08
X(15)	-.4062227E+05	.9395838E+07	-.4929455E+10	.8220464E+10	-.1635459E+10	-.5772263E+06	.2099881E+08	-.1271722E+04
X(43)	.1239469E+05	.6605717E+08	.1506566E+11	.5252051E+11	.8902123E+10	.3356456E+07	.1117813E+14	.3836819E+08
X(21)	-.1360290E+07	-.4457351E+09	.1269683E+13	.2193838E+13	.1022008E+11	.7673697E+07	.2822552E+16	.2446770E+10
X(47)	.1972633E+07	.2065955E+11	.2572142E+13	.9021753E+13	.2176455E+13	.7985723E+09	.1863746E+16	.5027267E+10
X(31)	.2960823E+06	.2518035E+10	-.4574070E+11	.2180729E+12	.4495522E+12	.8595334E+08	-.1185214E+15	-.7871792E+08
X(42)	.3132053E+04	.1535658E+08	.8472636E+10	.2321095E+11	.4777699E+10	.1423384E+07	.8546163E+13	.1953044E+08
X(46)	.4623581E+06	.5031334E+10	.1499074E+13	.4064358E+13	.1094996E+13	.3212861E+09	.1516617E+16	.2762365E+10
X(36)	.6214788E+06	-.5032342E+09	.1116173E+14	.2304406E+14	.8697774E+13	.1407121E+10	.1379760E+17	.2392350E+11
MACH	-.3783952E+01	.5702813E+03	-.4816273E+06	-.3496630E+06	-.5835619E+05	-.1446821E+02	-.5965447E+09	-.1115462E+04

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	X(14)	X(30)	DT	X(15)	X(43)	X(21)	X(47)	X(31)
X( 7)	.3587545E+03	.8503612E+07	-.5436630E+03	.2593199E+08	.4717709E+06	-.6510045E+08	.1250363E+09	.4005044E+08
X(19)	.1252797E+05	.2029868E+09	-.1710460E+05	-.2783353E+07	.4293791E+09	.1757569E+11	.5348544E+11	.6276936E+09
DC	-.1275074E+04	-.4637487E+08	.4089111E+04	-.3524717E+08	.1140918E+09	.8559585E+10	.1489168E+11	.2873324E+09
X(18)	.2932471E+04	.6371763E+08	.9856285E+03	-.1676366E+08	.1805679E+09	.9356851E+10	.2392850E+11	.2929204E+08
X( 6)	.8685309E+02	.2468613E+07	-.7850567E+02	.7185738E+06	.1779110E+06	-.1067961E+08	.4252987E+08	.8997339E+07
X(16)	.1292310E+03	.3019824E+07	-.1583890E+03	.6849105E+06	.1999691E+06	-.2398739E+08	.4751344E+08	.1451722E+08
X(26)	.6311918E+03	.2279721E+09	.7896419E+05	.2909190E+07	.2334446E+08	-.9104666E+08	.6216882E+10	.6838171E+09
X(10)	-.5898374E+05	-.1233715E+10	-.1148277E+06	.9104736E+09	-.3148750E+09	.3362159E+11	-.5278641E+11	-.6575873E+10
X( 8)	.2750800E+01	.5278155E+05	.3771287E+01	-.4062227E+05	.1239469E+05	-.1360290E+07	.1972633E+07	.2960823E+06
X(27)	.2288810E+04	.6775621E+09	.1949798E+06	.9395838E+07	.6605717E+08	-.4457351E+09	.2065955E+11	.2518035E+10
X(11)	-.1877659E+06	-.6972805E+10	.1830384E+06	-.4929455E+10	.1506566E+11	.1269683E+13	.2572142E+13	-.4574070E+11
X(23)	.3309760E+07	.5664113E+11	-.9881878E+07	.8220464E+10	-.5252051E+11	.2193838E+13	.9021753E+13	.2180729E+12
X(13)	-.2539990E+05	.1929493E+12	.7828711E+08	-.1635459E+10	.8902123E+10	.1022008E+11	.2176455E+13	.4495522E+12
X(28)	.1519548E+02	.3320928E+08	.2011341E+05	-.5772263E+06	.3356456E+07	-.7673697E+07	.7985723E+09	.8595334E+08
X(25)	-.9561155E+09	-.1992055E+14	.7299451E+08	.2099881E+13	.1117813E+14	.2822552E+16	.1863746E+16	-.1185214E+15
X(20)	-.2532212E+03	-.1255201E+08	.1267255E+04	-.1271722E+08	.3836819E+08	.2446770E+10	.5027267E+10	-.7871792E+08
X(14)	.3219542E+02	.8775140E+06	-.1861254E+02	.1680767E+06	.7618513E+05	-.4913547E+07	.1659512E+08	.3384019E+07
X(30)	.1875140E+06	.3659539E+12	.8703430E+08	.4378608E+10	.2258749E+11	.1145494E+12	.5906291E+13	.1022895E+13
DT	-.1861254E+02	.9703430E+08	.6235743E+05	-.1135665E+07	.8251424E+07	.1998083E+07	.2044837E+10	.2298351E+09
X(15)	.1880767E+06	.4378608E+10	.6125532E+10	-.4855935E+09	.4305757E+11	.9477183E+11	.6191575E+13	.6071001E+11
X(43)	.7618513E+05	.2258749E+11	.8251424E+07	-.4855935E+09	.4305757E+11	.9477183E+11	.6191575E+13	.6071001E+11
X(21)	-.4913547E+07	-.1145494E+12	.1998083E+07	-.1398400E+11	.9477183E+11	.1812443E+14	.1143453E+14	-.6520810E+12
X(47)	.1659512E+08	.5906291E+13	.2044837E+10	-.1893975E+11	.6191575E+13	.1143453E+14	.1141174E+16	.1844567E+14
X(31)	.3384019E+07	.1022895E+13	.2298351E+09	.1615675E+11	.6071001E+11	-.6520810E+12	.1844567E+14	.3449843E+13
X(42)	.2049168E+05	.8894796E+10	.4008798E+07	-.2787700E+09	.1520378E+11	.6298029E+11	.2201056E+13	.1594479E+11
X(46)	.4451932E+07	.2197656E+13	.9254347E+08	-.2538335E+11	.2231552E+13	.8748408E+13	.4053330E+15	.4924512E+13
X(36)	-.1720714E+08	.8167273E+13	.4339578E+10	-.4783804E+12	.8276673E+13	.9232574E+14	.1178666E+16	.9768867E+13
MACH	.8815947E+01	.1887999E+06	-.4281239E+02	.1194781E+06	-.4564462E+05	-.4339974E+07	-.3705056E+07	.9359138E+06

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	X(42)	X(46)	X(35)	MACH
X( 7)	.1822966E+05	.1253346E+08	-.3357589E+09	.1234691E+03
X(19)	.1792941E+09	.2383522E+11	.1729179E+12	-.7011131E+04
DC	.5983430E+08	.8465464E+10	.7468366E+11	-.3475619E+04
X(18)	.8542911E+08	.1208599E+11	.8499428E+11	-.3448816E+04
X( 6)	.4898434E+05	.1198825E+08	-.5749215E+08	.2706558E+02
X(16)	.1737513E+05	.5352296E+07	-.1060020E+09	.4113499E+02
X(26)	.8344867E+07	.2104688E+10	.3179354E+10	.1224656E+03
X(10)	-.9254017E+08	-.1404750E+11	-.2327013E+11	.4937775E+03
X( 8)	.3132093E+04	.4263581E+06	.6214788E+06	-.3783952E-01
X(27)	.1535658E+08	.5031334E+10	-.5032342E+09	.5702813E+03
X(11)	.8472636E+10	.1499074E+13	.1116173E+14	-.4816273E+06
X(23)	.2321095E+11	.4064358E+13	.2304406E+14	-.3496630E+06
X(12)	.4777699E+10	.1094996E+13	.8697774E+13	-.5835619E+05
X(28)	.1423384E+07	.3212861E+09	.1407121E+10	-.1446821E+02
X(25)	.8546163E+13	.1516617E+16	.1379760E+17	-.5965447E+09
X(20)	.1953044E+08	.2762365E+10	.2392350E+11	-.1115462E+04
X(14)	.2049168E+05	.4451932E+07	.1720714E+08	.8815947E+01
X(30)	.8894796E+10	.2197656E+13	.8167273E+13	.1887999E+06
DT	.4008798E+07	.9254347E+09	.4339578E+10	-.4281239E+02
X(15)	-.2767700E+09	-.2538335E+11	-.4783804E+12	.1194781E+06
X(43)	.1520378E+11	.2231552E+13	.8276673E+13	-.4564462E+05
X(21)	.6298029E+11	.8748408E+13	.9232574E+14	-.4339974E+07
X(47)	.2201056E+13	.4053330E+15	.1178666E+16	-.3705056E+07
X(31)	.1594479E+11	.4924512E+13	.9768867E+13	.9359138E+06
X(42)	.6184006E+10	.9259635E+12	.3896890E+13	-.2632240E+05
X(46)	.9259635E+12	.1696960E+15	.5859345E+15	-.3135273E+07
X(36)	.3896890E+13	.5859345E+15	.4144584E+16	-.3913104E+08
MACH	-.2632240E+05	-.3135273E+07	-.3913104E+08	.4880599E+01

INVERSE OF THE COVARIATES  
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FOR TOTAL.

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	X( 7)	X(19)	DC	X(18)	X( 6)	X(16)	X(26)	X(10)
X( 7)	.1805690E+00	-.1279419E-05	.5925235E-03	.2750268E-04	-.1942312E+00	-.4842312E+00	-.1440138E-04	.5546244E-04
X(19)	-.1279419E-05	.2595973E-06	.9854195E-07	-.5194270E-06	.4290104E-04	-.1736215E-06	-.4571174E-07	.4025170E-08
DC	.5925235E-03	.9854195E-07	.1012270E-05	-.3284381E-05	.9627741E-04	-.1688369E-02	-.3208796E-05	.7436685E-06
X(18)	.2750268E-04	-.5194270E-06	-.3284381E-05	.2605884E-03	-.2644107E-03	.8310428E-05	.1505982E-05	-.1002404E-07
X( 6)	-.1942312E+00	.4290104E-04	.9627741E-04	-.2644107E-03	.1803979E+01	.6585945E+00	-.1451508E-03	.4658693E-04
X(16)	-.4842312E+00	-.1736215E-06	-.1688369E-02	.8310428E-05	.6585945E+00	.1328363E+01	-.1433170E-03	-.1398136E-03
X(26)	-.1440138E-04	-.4571174E-07	-.3208796E-05	.1505982E-05	-.1451508E-03	.1433170E-03	.2490395E-03	-.2602809E-07
X(10)	.5546244E-04	.4025170E-08	.7436685E-06	-.1002404E-07	.4658693E-04	-.1398136E-03	-.2602809E-07	.3984255E-07
X( 8)	.9284808E+00	.1292375E-03	.1888038E-01	-.5260747E-03	.3740625E+01	-.2129613E+01	-.1443328E-02	.8960383E-03
X(27)	.1413863E-04	.2695961E-07	.7849810E-06	.3357275E-06	.3273489E-05	.1509588E-04	.5350643E-04	.6715670E-08
X(11)	.9519618E-07	.3654478E-08	.3307169E-07	.8200140E-09	.3735258E-06	.4099592E-07	.6169556E-08	.2426763E-09
X(23)	-.2432146E-07	.8097383E-09	.5003529E-08	-.4026358E-09	.6695661E-07	-.2291904E-07	-.1509494E-08	-.1510686E-10
X(13)	-.8345605E-07	.8068999E-10	.4102250E-09	-.6016236E-09	.5416500E-06	.4999505E-08	.1174147E-06	-.1022385E-11
X(28)	-.2083866E-03	.1746873E-06	.8383262E-05	-.1945898E-05	.5605108E-02	.1755696E-02	.7778316E-04	.4218987E-06
X(25)	-.1362072E-10	-.7044569E-12	.1134631E-10	-.2238820E-12	.2312311E-09	.7497598E-11	.1349461E-11	-.1528189E-12
X(20)	-.1649435E-02	.1316328E-05	-.2543258E-03	.4884622E-05	.5086029E-03	.4550925E-02	.2862484E-05	-.2023300E-05
X(14)	.5678594E+00	.6307761E-04	.1700244E-03	.3643210E-03	-.5389496E+01	-.2001114E+01	.1107184E-02	-.1380910E-03
X(30)	.1558744E+06	.3328702E-10	.1374935E-08	-.2989680E-09	-.8881141E-06	.5131746E-07	-.2013776E-06	-.2573841E-11
DT	.7822594E-04	-.9088263E-07	-.2199468E-05	.6153305E-06	-.1809987E-02	-.4940535E-03	-.1668583E-03	-.1284601E-06
X(15)	-.1721681E-04	.3432308E-09	-.8161982E-07	.5464424E-08	-.3636145E-04	.4108211E-04	.5593914E-08	-.9322185E-08
X(43)	-.1776388E-06	.3730946E-08	-.1122072E-07	.5312621E-08	-.9969163E-07	-.5276380E-06	.4715036E-07	.7964528E-10
X(21)	-.7114305E-07	.1016373E-09	-.1191559E-07	.8957122E-10	.9261640E-07	.1846019E-08	.6211459E-11	-.7768946E-10
X(47)	-.7261903E-09	.1642856E-10	-.7742801E-10	-.3209327E-11	.1460189E-09	.3280999E-08	.5916018E-09	-.5343479E-12
X(31)	-.4269646E-07	.5437438E-11	-.4033988E-09	.1182452E-09	.2004168E-06	.1469162E-07	.4272260E-07	.4480889E-12
X(42)	-.6136074E-06	.1119125E-07	-.2998046E-07	-.2404051E-07	.8842105E-06	.1421895E-05	.4950622E-07	-.2090179E-09
X(46)	.1193123E-08	-.4147775E-10	.2435943E-09	.8352884E-11	.2354807E-08	-.6036781E-08	-.1573735E-08	.1220262E-11
X(36)	.1732726E-09	-.1439430E-11	-.1224284E-10	.1063728E-10	-.5927904E-09	-.3139213E-09	.9924644E-10	-.2632877E-13

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	X( 8)	X(27)	X(11)	X(23)	X(13)	X(28)	X(25)	X(20)
X( 7)	.928480E+00	.141386E-04	.951961E-07	-.243214E-07	-.834560E-07	-.208386E-03	-.136207E-10	-.164943E-02
X(19)	.129237E-03	-.269596E-07	.365447E-08	-.809738E-09	.806899E-10	.174687E-06	-.704456E-12	-.131632E-05
DC	.188803E-01	.784981E-06	-.330716E-07	.500352E-08	.410225E-09	.838326E-05	.113463E-10	-.254225E-03
X(18)	-.526074E-03	-.335727E-06	.820014E-09	-.402625E-08	-.601623E-09	-.194589E-05	-.223882E-12	.488462E-05
X( 6)	.374062E+01	-.327348E-05	-.373525E-06	.669566E-07	.541650E-06	.560510E-02	.231231E-09	.508602E-03
X(16)	-.212961E+01	.150958E-04	.409959E-07	-.229190E-07	.499950E-08	.175569E-02	.749759E-11	.455092E-02
X(26)	-.144322E-02	.535064E-04	.616955E-08	-.150949E-08	.117414E-06	.777831E-04	.134946E-11	.286248E-05
X(10)	.896038E-03	.671567E-08	.242676E-09	-.151068E-10	-.102238E-11	.421898E-06	-.152818E-12	.202330E-05
X( 8)	.285649E+02	.408767E-03	-.102656E-05	.256736E-06	-.250234E-07	.139343E-01	.572319E-09	.497242E-01
X(27)	.408767E-03	.143545E-04	-.161052E-08	.806286E-09	-.176417E-07	.266589E-04	-.670925E-12	.775291E-06
X(11)	-.102656E-05	.161052E-08	.207248E-09	-.267457E-10	-.377935E-12	.251385E-08	-.712168E-13	.518929E-08
X(23)	.256736E-06	.606286E-09	-.267457E-10	.645352E-11	.968209E-13	.143848E-08	.543944E-14	.260480E-08
X(13)	-.250234E-07	-.176417E-07	.377935E-12	.968209E-13	.126085E-09	.383214E-08	.330589E-15	.111330E-08
X(28)	-.139343E-01	.266589E-04	-.251385E-08	.143848E-08	.383214E-08	.261424E-02	-.995100E-12	.130439E-04
X(25)	.572319E-09	-.670925E-12	.712168E-13	.543944E-14	.330589E-15	-.995100E-12	.442434E-16	.196008E-11
X(20)	.497242E-01	.775291E-06	.518929E-08	-.260480E-08	.111330E-08	.130439E-04	-.196008E-11	.682323E-03
X(14)	-.115143E+02	.180465E-03	.908369E-06	-.112996E-06	.447416E-07	.171416E-01	.636701E-09	.195320E-02
X(30)	.162513E-06	.424129E-07	.707829E-12	.379833E-13	-.135290E-09	.156708E-08	-.103724E-14	.293217E-08
DT	.475332E-02	.301690E-04	.622708E-09	.359706E-09	-.111477E-06	.846588E-03	.216225E-12	.322630E-05
X(15)	-.223842E-03	.555351E-09	.218180E-10	-.309841E-11	-.128690E-11	.339334E-06	-.141882E-13	.184491E-06
X(43)	.157775E-05	.216089E-07	-.521135E-10	.149376E-10	-.142278E-10	.515129E-07	-.134495E-13	.105583E-07
X(21)	-.220412E-05	.541509E-10	.106545E-10	-.834662E-12	.238051E-14	-.217272E-08	-.663021E-14	.270227E-07
X(47)	-.685382E-08	-.236237E-09	.427515E-12	-.100415E-12	.230648E-14	-.172240E-10	.796475E-16	.345187E-10
X(31)	.865425E-07	-.112548E-07	-.233906E-12	.534552E-13	.205547E-10	.358235E-08	.336925E-15	.736463E-09
X(42)	-.271682E-05	.326000E-07	.222848E-09	.361387E-10	.745416E-10	.330209E-07	.308199E-13	.256021E-07
X(46)	.203691E-07	.564349E-09	-.156027E-11	.254938E-12	.608550E-14	.183565E-09	-.148277E-15	.250707E-10
X(36)	.115045E-09	-.233197E-10	.740823E-14	-.154365E-14	-.679179E-13	-.387295E-11	-.477259E-17	-.594541E-11

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	X(14)	X(30)	DT	X(15)	X(43)	X(21)	X(47)	X(31)
X( 7)	.567859E+00	.155874E-06	.782259E-04	-.172166E-04	.177883E-06	-.711430E-07	-.726190E-09	-.426964E-07
X(19)	-.630775E-04	.332870E-10	-.908826E-07	-.343230E-09	-.373094E-08	-.101837E-09	.164285E-10	-.543743E-11
DC	.170024E-03	.137493E-08	-.219848E-05	.816198E-07	.112207E-07	-.119155E-07	.774280E-10	-.403398E-09
X(18)	.364321E-03	-.298968E-09	.615330E-06	.546442E-08	.531262E-08	.895712E-10	-.320932E-11	.118245E-09
X( 6)	-.538949E+01	.888114E-06	-.180997E-02	.363514E-04	.996916E-07	-.926164E-07	.146018E-09	.200416E-06
X(16)	-.200111E+01	.513174E-07	.494053E-03	.410821E-04	.527638E-06	.184601E-06	.329099E-08	.146916E-07
X(26)	-.110719E-02	.201377E-06	.166858E-03	.559391E-08	.471503E-07	.621145E-11	.591601E-09	.427226E-07
X(10)	-.138091E-03	.257394E-11	-.128460E-06	.932218E-08	.796452E-10	-.776894E-10	-.534347E-12	.448098E-12
X( 8)	-.115143E+02	.162513E-06	.475332E-02	-.223842E-03	.157775E-05	-.220412E-05	-.685382E-08	.865425E-07
X(27)	-.180465E-03	.424129E-07	.301690E-04	.555351E-09	.216089E-07	.541509E-10	-.236237E-09	-.112548E-07
X(11)	.908369E-06	.707829E-12	.622708E-09	.218180E-10	-.622135E-10	.106545E-10	.427515E-12	-.233906E-12
X(23)	-.112996E-06	.379833E-13	-.359706E-09	-.309841E-11	.149376E-10	-.834662E-12	-.100415E-12	.534552E-13
X(13)	-.447416E-07	-.135290E-09	-.111477E-06	-.128690E-11	.142278E-10	.238051E-14	.230648E-14	.205547E-10
X(28)	-.171416E-01	.156708E-08	.846588E-03	.339334E-06	.515129E-07	-.217272E-08	-.172240E-10	.358235E-08
X(25)	-.636701E-09	.103724E-14	.216225E-12	-.141882E-13	.134495E-13	.663021E-14	.796475E-16	.336925E-15
X(20)	-.195320E-02	.293217E-08	.322630E-05	.184491E-06	.105583E-07	.270227E-07	.345187E-10	.736463E-09
X(14)	.164774E+02	.224397E-06	.503200E-02	.106039E-03	.316446E-06	.255939E-06	.587789E-09	.740534E-07
X(30)	.224397E-06	.223888E-06	.123573E-06	.951043E-11	.693910E-11	.205882E-14	.679053E-13	-.477350E-10
DT	.503200E-02	.123573E-06	.401751E-03	.103931E-06	.234807E-07	.635535E-09	.149113E-10	.177667E-07
X(15)	.106039E-03	.951043E-11	.103931E-06	.408707E-08	-.204208E-10	.155681E-10	.560105E-13	.224971E-11
X(43)	-.316446E-06	.693910E-11	.234807E-07	-.204208E-10	.123259E-08	.170594E-11	.678001E-11	.258251E-11
X(21)	.255939E-06	.205882E-14	.635535E-09	.155681E-10	.170594E-11	.226829E-11	.107385E-13	-.111661E-13
X(47)	-.587789E-09	.740534E-07	-.149113E-10	.560105E-13	-.678001E-11	.107385E-13	.479121E-13	.322824E-13
X(31)	-.740534E-07	-.477350E-10	.177667E-07	.224971E-11	.258251E-11	-.111661E-13	.322824E-13	.127971E-10
X(42)	.670019E-06	.859792E-11	.221544E-07	.824807E-10	.343450E-08	.346664E-11	.178952E-10	-.410327E-11
X(46)	-.668249E-08	.985152E-13	-.198599E-10	-.227324E-12	.180582E-10	.232005E-13	-.124493E-12	-.537769E-13
X(36)	.190730E-09	-.277350E-13	-.170488E-11	-.196098E-13	.188582E-12	.286622E-15	.271860E-15	.127558E-13

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	X(42)	X(46)	X(36)
X(7)	-.6136074E-06	.1193123E-08	.1732726E-09
X(19)	.1119125E-07	-.4147775E-10	-.1439430E-11
DC	-.2998046E-07	.2435943E-09	-.1224284E-10
X(18)	-.2404051E-07	.8352884E-11	.1063728E-10
X(6)	.8842105E-06	.2354807E-08	-.5927904E-09
X(16)	.1421895E-05	-.6036781E-08	-.3139213E-09
X(26)	.4950622E-07	-.1573735E-08	.9924644E-10
X(10)	-.2090179E-09	.1220262E-11	.2632877E-13
X(8)	-.2716825E-05	.2036910E-07	.1150451E-09
X(27)	-.3260007E-07	.5643495E-09	-.2331979E-10
X(11)	.2228480E-09	-.1560272E-11	.7408234E-14
X(23)	-.3613872E-10	.2549356E-12	-.1543652E-14
X(13)	.7454160E-10	.6085509E-14	-.6791791E-13
X(28)	.3302090E-07	.1835654E-09	-.3872952E-11
X(25)	.3081990E-13	-.1482772E-15	.4772593E-17
X(20)	.2560216E-07	-.2507077E-10	.5945417E-11
X(14)	.6700193E-06	-.6682498E-08	.1907301E-09
X(30)	.8597926E-11	.9851525E-13	-.2773530E-13
DT	-.2215442E-07	-.1985992E-10	-.1704882E-11
X(15)	.8248073E-10	-.2273242E-12	-.1960985E-13
X(43)	-.3434503E-08	.1805829E-10	.1885821E-12
X(21)	-.3466645E-11	.2320057E-13	.2866227E-15
X(47)	.1789526E-10	-.1244939E-12	.2718605E-15
X(31)	-.4103278E-11	-.5377692E-13	.1275584E-13
X(42)	.1102816E-07	-.5377054E-10	-.1185524E-11
X(46)	-.5377054E-10	.3655458E-12	-.6275740E-15
X(36)	-.1185524E-11	-.6275740E-15	.1172471E-14

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INVERSE OF THE COVARIATES  
CROSS PRODUCT MATRIX  
FOR TREATMENT.

	X(7)	X(19)	DC	X(18)	X(6)	X(16)	X(26)	X(10)
X(7)	.4959632E+12	.9370779E+10	.6751082E+10	.4306199E+11	-.3702278E+12	-.6963063E+12	-.2264707E+11	-.5631567E+09
X(19)	-.3233487E+09	-.8661509E+07	-.1566525E+08	-.4408843E+08	-.5107531E+09	-.1141160E+10	.2198030E+08	.4033542E+06
DC	.6810364E+10	.1210469E+09	.1168030E+09	.5600272E+09	.5681295E+10	-.7824260E+10	-.2540004E+09	-.7816538E+07
X(18)	-.1254264E+11	.2390401E+09	.1668691E+09	.1087145E+10	-.9497402E+10	-.1801009E+11	-.6199537E+09	-.1490847E+08
X(6)	-.5879872E+12	-.1169100E+11	-.9555249E+10	-.5378949E+11	.4049040E+12	.6966981E+12	.2982434E+11	.6901851E+09
X(16)	.2529721E+13	.4843509E+11	.3907859E+11	.2688019E+12	-.1801771E+13	-.3777301E+13	-.1203665E+12	-.3002356E+10
X(26)	.7710690E+11	.1474596E+10	.1108272E+10	.6788124E+10	-.5528809E+11	-.1112331E+12	.3562238E+10	-.9138234E+08
X(10)	-.5594548E+09	-.1082682E+08	-.9445522E+07	-.5044426E+08	.4201482E+09	.8307636E+09	.2457267E+08	.7191077E+06
X(8)	.1336406E+13	.2542144E+11	.2890763E+11	.1278382E+12	-.1068475E+13	-.2118980E+13	.5280607E+11	-.1706932E+10
X(27)	.1599750E+11	.3171459E+09	.2183715E+09	.1423343E+10	-.1103599E+11	-.2344621E+11	.8267661E+09	-.1967492E+08
X(11)	-.3672906E+08	-.7140526E+06	-.6315962E+06	-.3381946E+07	.3057918E+08	.4946337E+08	.1580286E+07	.4639049E+05
X(23)	-.6028660E+08	-.1163715E+07	-.9316048E+06	-.5420859E+07	.4531525E+08	.9098721E+08	.2961091E+07	.7216719E+05
X(13)	.1036238E+08	.2173259E+06	.2375033E+06	.1066960E+07	-.7688641E+07	-.1602644E+08	-.6409505E+06	-.1649601E+05
X(28)	.8736641E+10	.9481226E+08	-.1439931E+09	.4691823E+09	-.1070780E+11	-.7058914E+10	-.2341034E+09	-.5496351E+07
X(25)	-.4759605E+05	-.8770111E+03	-.5693231E+03	-.3934083E+04	.3788480E+05	.5561141E+05	.1874241E+04	.5403432E+02
X(20)	.4367830E+11	.8349143E+09	.5984197E+09	.3851693E+10	-.3052638E+11	-.6216007E+11	.2283720E+10	-.5242574E+08
X(14)	-.3340232E+13	-.6288123E+11	-.5120345E+11	-.3006918E+12	.2469013E+13	.4935661E+13	.1584406E+12	.3827645E+10
X(30)	.1628785E+08	.3176964E+06	.3074939E+06	.1575379E+07	-.1175718E+08	-.2619405E+08	.7966281E+06	-.1996577E+05
DT	-.1947064E+11	-.3698681E+09	-.3793511E+09	-.1830013E+10	.1522503E+11	.2919127E+11	.9537569E+09	.2329063E+08
X(15)	-.2389900E+09	-.4421717E+07	-.3470624E+07	-.2164803E+08	.1620521E+09	.3664334E+09	.1252011E+08	.2880767E+06
X(43)	-.8272217E+09	-.1600561E+08	-.1196221E+08	-.7361415E+08	.6066439E+09	.1208814E+10	.3825663E+08	.9788377E+06
X(21)	-.6965436E+07	-.1242574E+06	-.8442461E+05	-.5503746E+06	.5446783E+07	.8655013E+07	.2587335E+06	.7671997E+04
X(47)	.4138924E+06	.8037883E+04	.7445426E+04	.3494618E+05	-.3788676E+06	-.3907561E+06	-.1665859E+05	-.4199254E+03
X(31)	-.1844810E+08	-.3142826E+06	-.2249955E+06	-.1445845E+07	.1184562E+08	.2331717E+08	.7686120E+06	.1959393E+05
X(42)	-.8071335E+09	-.1573790E+08	-.1302039E+08	-.7356582E+08	.5525694E+09	.1258853E+10	.4115620E+08	.8986533E+06
X(46)	.8211904E+06	.1531389E+05	.1416797E+05	.7395067E+05	-.5545569E+06	-.1577298E+07	.2962601E+05	.7993667E+03
X(36)	.4736797E+06	.9222122E+04	.7962371E+04	.4514209E+05	-.3240090E+06	-.8019868E+06	-.2425874E+05	-.6092046E+03

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	X(8)	X(27)	X(11)	X(23)	X(13)	X(28)	X(25)	X(20)
X(7)	-.2002429E+13	-.2985424E+11	.1604164E+08	.3095175E+08	-.2433457E+08	.1699160E+12	-.9182862E+05	.6545120E+11
X(19)	-.1831907E+10	.2315257E+08	-.1691604E+05	-.3817185E+05	.5374760E+05	-.1601820E+09	.9341983E+02	-.4916325E+08
DC	-.2626865E+11	.4004610E+09	.1071312E+06	.3822814E+06	-.2977076E+06	.2099512E+10	-.1285204E+04	.8340414E+09
X(18)	-.4984536E+11	.7973718E+09	.2100113E+06	.8122200E+06	-.5644332E+06	.4248826E+10	-.2435694E+04	.1670161E+10
X(6)	.2392366E+13	.3740983E+11	-.1254688E+08	-.3718634E+08	.2881304E+08	-.2099535E+12	.1109113E+06	-.7238160E+11
X(16)	-.1043065E+14	-.1570782E+12	.6332655E+08	.1643470E+09	-.1223864E+09	.8786968E+12	-.4861678E+06	.3258642E+12
X(26)	-.3195328E+12	.4751206E+10	.2301594E+07	.4973812E+07	-.3690420E+07	.2673850E+11	-.1464757E+05	.9852710E+10
X(10)	.2240251E+10	.3536819E+08	-.7232564E+04	-.3589590E+05	.2373448E+05	-.1931437E+09	.1110278E+03	-.7498848E+08
X(8)	-.5027894E+13	.8193075E+11	.2244861E+08	.8164712E+08	-.8654627E+08	.4690822E+12	-.2528315E+06	.1784540E+12
X(27)	-.7024868E+11	.9823960E+09	.6532230E+06	.1030385E+07	-.7982607E+06	.5736637E+10	-.3044832E+04	.2018099E+10
X(11)	.1375020E+09	.2356519E+07	-.6511383E+03	-.2356988E+04	.1929409E+04	-.1286966E+08	.7054737E+01	-.5145190E+07
X(23)	.2477215E+09	.3792075E+07	-.1595652E+04	-.3918430E+04	.2819520E+04	-.2118451E+08	.1152128E+02	-.7821382E+07
X(13)	-.4797717E+08	.8475109E+06	-.3422566E+03	.7184687E+03	-.9053065E+02	.3803917E+07	-.2401332E+01	.1381031E+07
X(28)	-.2106445E+11	.4881169E+08	.9694681E+06	.3510108E+06	-.8493837E+06	.2152937E+09	-.6262139E+03	.1627418E+10
X(25)	.1958964E+06	.2746507E+04	-.1413019E+01	-.2857405E+01	.1955922E+01	-.1545706E+05	.8885133E+02	-.5994887E+04
X(20)	-.1808702E+12	-.2794835E+10	.9852885E+06	.2863686E+07	-.1668151E+07	.1574160E+11	-.8260205E+04	.5439106E+10
X(14)	.1363870E+14	.2098944E+12	-.7084237E+08	-.2134762E+08	.1811290E+09	-.1179074E+13	.6384312E+06	-.4295406E+12
X(30)	-.6592900E+08	-.1037752E+07	.3873330E+03	.1079447E+04	-.9394905E+03	.6040153E+07	-.3140288E+01	.2219508E+07
DT	.8139215E+11	.1286968E+10	-.2633659E+06	-.1263487E+07	.9080583E+06	.7277231E+10	.3830618E+04	-.2355052E+10
X(15)	.9503545E+09	.1552262E+08	.5380749E+04	-.1635909E+05	.1117924E+05	-.8139804E+08	.4682228E+02	-.3146476E+08
X(43)	.3473815E+10	.5137195E+08	-.2320152E+05	-.5307335E+05	.4022848E+05	.2842974E+09	.1568371E+03	-.1070142E+09
X(21)	.2819293E+08	.3758671E+06	-.2229726E+03	-.3534356E+03	.3579572E+03	-.2181379E+07	.1170279E+01	-.9013204E+06
X(47)	-.2024817E+07	.2625924E+05	-.7752519E+01	.2457944E+02	-.1634671E+02	.1332935E+06	-.8207904E+01	.4373812E+05
X(31)	.6706773E+08	.9498213E+06	-.5089014E+03	-.1031763E+04	.8695537E+03	-.5432213E+07	.3047307E+01	-.2182064E+07
X(42)	.3291585E+10	.5161062E+08	-.2283862E+05	-.5420093E+05	.4120980E+05	-.2899980E+09	.1561883E+03	-.1029388E+09
X(46)	-.2757931E+07	-.4632135E+05	.3217297E+02	.5739695E+02	-.6021727E+02	.2873522E+06	-.1341998E+00	.1106136E+06
X(36)	-.1738764E+07	-.3123162E+05	.1590183E+02	.3107857E+02	-.2586751E+02	.1675140E+06	-.9394191E+01	.6513106E+05

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	X(14)	X(30)	DT	X(15)	X(43)	X(21)	X(47)	X(31)
X(7)	-.6502847E+13	-.3087522E+08	.1803929E+11	-.9837842E+08	-.4053744E+09	-.2593490E+08	.2698861E+07	.1869299E+08
X(19)	.6145113E+10	.6047135E+05	-.1054406E+08	.2320879E+06	.1437159E+06	.1895128E+05	-.3220300E+04	-.2175504E+05
DC	-.8782033E+11	.3747812E+06	.2077039E+09	-.5635402E+06	-.5379410E+07	.3631051E+06	.3542603E+05	.2370550E+06
X(18)	-.1676045E+12	-.7174972E+09	.4585847E+09	-.2095643E+07	-.9820027E+07	-.6504138E+06	.6939427E+05	.4606007E+06
X(6)	.7960248E+13	.3771702E+08	-.2213304E+11	.7795960E+08	.5005220E+09	.3210687E+08	-.3445312E+07	-.2283926E+08
X(16)	-.3379556E+14	-.1610293E+09	.9571738E+11	.4208593E+09	-.2104192E+10	-.1342688E+09	.1459289E+08	.9643154E+08
X(26)	-.1021565E+13	.4803284E+07	.2894279E+10	.1324143E+08	-.6577140E+08	-.4090828E+07	.4328089E+06	.2965050E+07
X(10)	.7488878E+10	.3408596E+05	-.2229178E+08	.6775966E+05	.4686568E+06	.3065858E+05	-.3129466E+04	-.1979746E+05
X(8)	-.1839326E+14	-.9857531E+08	.4549655E+11	-.2211176E+09	-.1126306E+10	.7332469E+08	.7763380E+07	.5110387E+08
X(27)	-.2134490E+12	-.1005659E+07	.6163084E+09	-.2681408E+07	-.1359106E+08	-.8517514E+06	.9377791E+05	.6243403E+06
X(11)	.5149281E+09	.2350855E+04	-.1176187E+07	.8603092E+04	.2984957E+05	.1924899E+04	-.2142659E+03	-.1423299E+04
X(23)	.8115536E+09	.3756600E+04	-.2293765E+07	.9742464E+04	.5074717E+05	.3247963E+04	-.3462631E+03	-.2306190E+04
X(13)	-.1555938E+09	-.6449572E+03	.4911054E+06	-.2547926E+02	-.8408202E+04	-.5697970E+03	.6781122E+02	.4007989E+03
X(28)	-.9186143E+11	-.5312941E+06	-.2354853E+09	-.5430649E+07	-.1162194E+07	-.2440103E+06	.2989902E+05	.5745602E+06
X(25)	.6106520E+06	.2650675E+01	-.1683353E+04	.8747381E+01	.3826960E+02	.2376744E+01	-.2402261E+00	.1650546E+01
X(20)	-.5856180E+12	-.2413029E+07	.1751467E+10	-.6348575E+07	-.3730835E+08	-.2342879E+07	.2396830E+06	.1611929E+07
X(14)	.4512225E+14	.2080915E+09	-.1284089E+12	.4803688E+09	-.2852888E+10	-.1775136E+09	-.1908396E+08	.1248835E+09
X(30)	-.2301216E+09	-.1225274E+04	.6305053E+06	.2857134E+04	-.1466983E+05	.9176416E+03	.1022481E+03	.6727839E+03
DT	.2658334E+12	.1220699E+07	-.7303936E+09	.1307471E+07	.1800861E+08	-.1116171E+07	-.1129523E+06	.7092904E+06
X(15)	.3175457E+10	.1559520E+05	-.9812784E+07	.3756215E+05	.1868872E+06	.1318993E+05	-.1379403E+04	-.9322298E+04
X(43)	.1110196E+11	.5122120E+05	-.3026304E+08	.1356727E+06	.6925099E+06	.4370457E+05	-.4735884E+04	-.3179649E+05
X(21)	.8458959E+08	.3663444E+03	-.2143172E+06	.1539532E+04	.5460952E+04	.3291773E+03	-.3422337E+02	-.2370583E+03
X(47)	-.5613347E+07	-.1547901E+02	-.1724113E+05	.1509592E+02	-.3645630E+03	-.2196298E+02	.2154914E+01	.1071703E+02
X(31)	.2184497E+09	.1099046E+04	-.5340690E+06	.3725337E+04	.1354524E+05	.8501428E+03	-.9478522E+02	-.6635144E+03
X(42)	.1100302E+11	.5357327E+05	-.3408469E+08	.1262052E+06	.6814384E+06	.4392133E+05	-.4762279E+04	-.3124193E+05
X(46)	-.1093844E+08	-.7360118E+02	.1974844E+05	-.2011320E+03	-.6425524E+03	-.4411892E+02	.4919126E+01	.3183469E+02
X(36)	-.6579870E+07	-.3164880E+02	.1918320E+05	-.9727022E+02	-.4089692E+03	-.2806725E+02	.2897619E+01	.1916616E+02

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	X(42)	X(46)	X(36)
X(7)	.5202594E+09	.1322611E+07	-.3632976E+06
X(19)	.1808255E+05	-.2090071E+04	.2482850E+03
DC	.7058588E+07	.1590024E+05	-.4055170E+04
X(18)	.1449920E+08	.2936289E+05	-.8907876E+04
X(6)	-.6646670E+09	-.1529331E+07	.4534332E+06
X(16)	.2739679E+10	.6384681E+07	-.2007430E+07
X(26)	.8496161E+08	.2012106E+06	-.6129098E+05
X(10)	-.6201814E+06	-.1304692E+04	.3908419E+03
X(8)	.1110012E+10	.4592395E+07	-.5892794E+06
X(27)	.1817644E+08	.4143539E+05	-.1533564E+05
X(11)	-.3523132E+05	-.1080656E+03	.2519778E+02
X(23)	-.6737077E+05	-.1496793E+03	.4723610E+02
X(13)	-.1531680E+05	-.1629196E+02	.9853841E+01
X(28)	-.3457900E+07	.3218072E+05	-.9740409E+04
X(25)	-.5172614E+02	-.9999324E+01	.3307956E+01
X(20)	.5278559E+08	.9876506E+05	-.3514316E+05
X(14)	-.3661068E+10	-.8525086E+07	.2469462E+07
X(30)	-.1733716E+05	-.4037576E+02	-.1110507E+02
DT	-.2555583E+08	-.5460460E+05	.1498621E+05
X(15)	-.2705934E+06	-.6250042E+03	.1853857E+03
X(43)	-.9085275E+06	-.2071217E+04	.6570005E+03
X(21)	-.6555778E+04	-.1796493E+02	.4481834E+01
X(47)	.5576205E+03	.7558886E+00	-.1977167E+00
X(31)	-.1563552E+05	-.4639033E+02	.1286507E+02
X(42)	-.9225398E+06	-.2115641E+04	.6767175E+03
X(46)	.7045472E+03	.3169200E+01	-.5457477E+00
X(36)	.5086152E+03	.1343408E+01	-.3421887E+00

INVERSE OF THE COVARIATES  
CROSS PRODUCT MATRIX  
FOR ERROR.

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	X(7)	X(19)	DC	X(18)	X(6)	X(16)	X(26)	X(10)
X(7)	.1805863E+00	-.1239565E-05	.5927254E-03	.2751055E-04	-.1941942E+00	-.4842619E+00	-.1688378E-04	.5546682E-04
X(19)	-.1239565E-05	.2596893E-06	.9300797E-07	-.5194088E-06	.4298629E-04	-.2444398E-06	-.5144130E-07	.4045289E-08
DC	.5927254E-03	.9900797E-07	.1012294E-03	-.3284289E-05	.9670932E-04	-.1888728E-02	.3237822E-05	.7437198E-06
X(18)	.2751055E-04	.5194088E-06	-.3284289E-05	.2605887E-05	-.2643939E-03	-.8324424E-05	.1504850E-05	-.1002204E-07
X(6)	-.1941942E+00	.4298629E-04	.9670932E-04	-.2643939E-03	.1804058E+01	.6585269E+00	-.1504610E-03	.4659630E-04
X(16)	-.4842619E+00	.2444398E-06	-.1888728E-02	-.8324424E-05	.6585269E+00	.1328418E+01	-.1388060E-03	.1398214E-03
X(26)	-.1688378E-04	.5144130E-07	.3237822E-05	.1504850E-05	-.1504610E-03	.1388060E-03	.2493953E-03	-.2665836E-07
X(10)	.5546682E-04	.4045289E-08	.7437198E-06	.1002204E-07	.4659630E-04	-.1398214E-03	.2665836E-07	.3984366E-07
X(8)	.9286421E+00	.1296099E-03	.1888227E-01	-.5260011E-03	.3740970E+01	-.2129900E+01	-.1466526E-02	.8960793E-03
X(27)	.1498853E-04	-.2499798E-07	.7949188E-06	-.3353398E-06	-.1455433E-05	.1358568E-04	.5362862E-04	.6931454E-08
X(11)	.9572305E-07	.3655694E-08	.3306553E-07	.8202544E-09	-.3723988E-06	.4005973E-07	.6093813E-08	.2428101E-09
X(23)	-.2459315E-07	.8103654E-09	.5000352E-08	.4027598E-09	.6637542E-07	-.2243627E-07	.1470436E-08	-.1517584E-10
X(13)	-.7685311E-07	.9593005E-10	.4874331E-09	.5986118E-09	.5557746E-06	-.6733390E-08	.1164655E-06	.6540583E-12
X(28)	-.2108836E-03	.1689242E-06	.8354065E-05	-.1947037E-05	.5599767E-02	.1760133E-02	.7814213E-04	.4212647E-06
X(25)	-.1362126E-10	.7044581E-12	.1134630E-10	-.2238822E-12	.2312300E-09	-.7496638E-11	.1349539E-11	.1528190E-12
X(20)	-.1650180E-02	.1318049E-05	.2543345E-03	.4884282E-05	.5070085E-03	.4552249E-02	.2969636E-05	-.2023489E-05
X(14)	.5677413E+00	.6335010E-04	.1686439E-03	.3642672E-03	-.5389749E+01	-.2000904E+01	.1124157E-02	.1381210E-03
X(30)	.1577080E-06	.3751919E-10	.1396376E-08	.2981316E-09	.8841917E-06	.4805922E-07	.2016412E-06	.2108392E-11
DT	.5718217E-04	.1394532E-06	.2445533E-05	.6057315E-06	.1855003E-02	.4566604E-03	.1638331E-03	.1338030E-06
X(15)	-.1722089E-04	.3531054E-09	.8166985E-07	.5462472E-08	-.3637060E-04	.4108971E-04	.6208970E-08	.9323271E-08
X(43)	.1760712E-06	.3734668E-08	.1120186E-07	.5311885E-08	-.1031412E-06	.5247725E-06	.4691854E-07	.7923586E-10
X(21)	-.7116914E-07	.1015771E-09	.1191590E-07	.8955932E-10	-.9267221E-07	.1846482E-06	.2460916E-11	.7769608E-10
X(47)	-.7169797E-09	.1644982E-10	.7732031E-10	.3205125E-11	.1657217E-09	.3274633E-08	.5902776E-09	.5320094E-12
X(31)	-.4239683E-07	.7053960E-11	.4115881E-09	.1179257E-09	.1989186E-06	-.1344711E-07	.4282329E-07	.2702776E-12
X(42)	.6105766E-06	.1119825E-07	.2994502E-07	.2403913E-07	.8906938E-06	.1418510E-05	.4907051E-07	.2082484E-09
X(46)	.1187470E-08	.4149080E-10	.2435282E-08	.8350306E-11	.2342713E-08	-.6026735E-08	.1572923E-08	.1218827E-11
X(36)	.1714323E-09	-.1443678E-11	.1226436E-10	.1063644E-10	-.5967270E-09	-.3106513E-09	.9951100E-10	.2586154E-13

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	X(8)	X(27)	X(11)	X(23)	X(13)	X(28)	X(25)	X(20)
X(7)	.9286421E-00	.1498853E-04	.9572305E-07	-.2459315E-07	-.7685311E-07	-.2108836E-03	-.1362126E-10	-.1650180E-02
X(19)	.1296099E-03	-.2499798E-07	.3655694E-08	-.8103654E-09	.9593005E-10	.1689242E-06	-.7044581E-12	-.1318049E-05
DC	.1888227E-01	.7949188E-06	-.3306553E-07	.5000352E-08	.4874331E-09	.8354065E-05	.1134630E-10	-.2543345E-03
X(18)	-.5260011E-03	-.3353398E-06	.8202544E-09	-.4027598E-09	-.5986118E-09	-.1947037E-05	-.2238822E-12	.4884282E-05
X(6)	.3740970E+01	-.1455433E-05	-.3723988E-06	.6637542E-07	.5557746E-06	.5599767E-02	.2312300E-09	.5070085E-03
X(16)	-.2129900E+01	.1358568E-04	.4005973E-07	-.2243627E-07	-.6733390E-08	.1760133E-02	-.7496638E-11	.4552249E-02
X(26)	-.1466526E-02	-.5362862E-04	.6093813E-08	-.1470436E-08	.1164655E-06	.7814213E-04	.1349539E-11	.2969636E-05
X(10)	.8960793E-03	.6931454E-08	.2428101E-09	-.1517584E-10	.6540583E-12	.4212647E-06	-.1528190E-12	-.2023489E-05
X(8)	.2856643E+02	.4167100E-03	-.1021639E-05	.2541978E-06	.3668037E-07	-.1395963E-01	.5723142E-09	-.4973117E-01
X(27)	.4167100E-03	.1439638E-04	-.1584593E-08	.5929140E-09	-.1731676E-07	-.2678182E-04	-.6709521E-12	-.8119773E-06
X(11)	-.1021639E-05	.1584593E-08	.2072644E-09	-.2675403E-10	-.1764665E-12	-.2590044E-08	-.7121889E-13	.5166552E-08
X(23)	.2541978E-06	.5929140E-09	-.2675403E-10	.6457965E-11	-.7070728E-14	.1477772E-08	.5439456E-14	-.2593073E-09
X(13)	.3668037E-07	.1731676E-07	-.1764665E-12	.7070728E-14	.1286104E-09	.2877317E-08	.3303831E-15	.8282959E-09
X(28)	-.1395963E-01	-.2678182E-04	-.2590044E-08	.1477772E-08	.2877317E-08	.2614605E-02	-.9950221E-12	.1293612E-04
X(25)	.5723142E-09	-.6709521E-12	.7121889E-13	.5439456E-14	.3303831E-15	-.9950221E-12	.4424345E-16	-.1960061E-11
X(20)	-.4973117E-01	.8119773E-06	.5166552E-08	-.2593073E-09	.8282959E-09	.1293612E-04	-.1960061E-11	.6823555E-03
X(14)	-.1151550E-02	-.1862761E-03	.9047689E-06	-.1111388E-06	.8988714E-07	-.1712456E-01	-.6366981E-09	-.1948113E-02
X(30)	-.1453782E-06	.4250325E-07	.7637772E-12	.9125272E-14	-.1345898E-09	-.1832243E-08	-.1037303E-14	.3011327E-08
DT	.4556667E-02	.2913323E-04	-.1938085E-10	.2860026E-10	-.1195247E-06	-.8435454E-03	.2168840E-12	.4134655E-05
X(15)	-.2238822E-03	.3447747E-09	.2168748E-10	.3031096E-11	-.2922892E-11	.3387159E-06	-.1418806E-13	.1846759E-06
X(43)	-.1562688E-05	.2152961E-07	.6216273E-10	.1496301E-10	-.1484452E-10	-.5127979E-07	-.1344954E-13	.1048869E-07
X(21)	-.2204366E-05	.5286687E-10	.1065372E-10	.8342516E-12	-.7595558E-14	-.2168954E-08	-.6630210E-14	.2702383E-07
X(47)	-.6767753E-08	-.2357843E-09	.4277964E-12	.1005600E-12	.5828547E-14	-.1855596E-10	.7964725E-16	.3412116E-10
X(31)	.7999757E-07	-.1128931E-07	-.2552762E-12	.4243541E-13	.2028697E-10	-.3481072E-08	.3369475E-15	.7666958E-09
X(42)	-.2688502E-05	.3245089E-07	.2229404E-09	.3618641E-10	.7570056E-10	.3258263E-07	.3081980E-13	.2547134E-10
X(46)	.2031627E-07	.5640712E-09	-.1560445E-11	.2550285E-12	.3923600E-14	.1843829E-09	-.1482770E-15	-.2482673E-10
X(36)	.9784788E-10	-.2341037E-10	.7352083E-14	-.1514697E-14	-.6862162E-13	-.3606837E-11	-.4772535E-17	-.5865982E-11

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	X(14)	X(30)	DT	X(15)	X(43)	X(21)	X(47)	X(31)
X(7)	.5677413E+00	.1577080E-06	.5718217E-04	-.1722089E-04	.1760712E-06	-.7116914E-07	-.7169797E-09	-.4339683E-07
X(19)	-.6325010E-04	.3751919E-10	-.1394532E-06	-.3531054E-09	-.3734668E-08	.1015771E-09	.1644982E-10	-.7053960E-11
DC	.1686439E-03	.1396376E-08	-.2445533E-05	.8166985E-07	.1120186E-07	-.1191590E-07	.7732031E-10	-.4115881E-09
X(18)	.3642672E-03	-.2981316E-09	.6057315E-06	.5462472E-08	.5311885E-08	.8955932E-10	.3205125E-11	.1179257E-09
X(6)	-.5389749E+01	.8841917E-06	-.1855003E-02	.3637060E-04	-.1031412E-06	-.9267221E-07	.1657217E-09	.1989186E-06
X(16)	-.2000904E+01	.4805822E-07	-.4566604E-03	.4108971E-04	.5247725E-06	.1846482E-06	.3274633E-08	-.1344711E-07
X(26)	.1124157E-02	-.2016412E-06	.1638331E-03	.6208970E-08	.4691854E-07	.2460916E-11	.5902775E-09	.4282329E-07
X(10)	-.1381210E-03	-.2108392E-11	.1338030E-06	.9323271E-08	.7923586E-10	.7769608E-10	.5320094E-12	.2702776E-12
X(8)	-.1151550E-02	-.1453782E-06	.4556667E-02	-.2238827E-03	.1562688E-05	-.2204366E-05	-.6767753E-08	.7999757E-07
X(27)	-.1862761E-03	.4250325E-07	.2913323E-04	.3447747E-09	.2152961E-07	.5286687E-10	-.2357843E-09	-.1128931E-07
X(11)	.9047689E-06	.7637772E-12	-.1938085E-10	.2168748E-10	-.6216273E-10	.1065372E-10	.4277964E-12	-.2552762E-12
X(23)	-.1111388E-06	.9132572E-14	-.2860026E-10	.3031096E-11	.1496301E-10	-.8342516E-12	.1005600E-12	.4243541E-13
X(13)	-.8988714E-07	-.1345898E-09	-.1195247E-06	-.2922892E-11	.1484452E-10	.7595558E-14	.5828547E-14	.2028697E-10
X(28)	-.1712456E-01	.1832243E-08	.8435454E-03	.3387159E-06	-.5127979E-07	-.2168954E-08	-.1855596E-10	-.3481072E-08
X(25)	-.6366981E-09	.1037303E-14	.2168840E-12	.1418806E-13	-.1344954E-13	.6630210E-14	.7964725E-16	.3369475E-15
X(20)	-.1948113E-02	.3011327E-08	.4134655E-05	.1846759E-06	-.1048869E-07	.2702383E-07	.3412116E-10	.7666958E-09
X(14)	.1647830E+02	.2118605E-06	.5175889E-02	.1060688E-03	-.3054206E-06	.2561176E-06	-.6507637E-09	-.6926484E-07
X(30)	.2118605E-06	.2240835E-09	.1213391E-06	.9056117E-11	.6767802E-11	-.7115428E-15	.6892727E-13	.4760945E-10
DT	.5175889E-02	.1213391E-06	.4273971E-03	.1091452E-06	.2544597E-07	.6673293E-09	.2613625E-10	.1691320E-07
X(15)	.1060688E-03	.9056117E-11	.1091452E-06	.4088135E-08	.2002132E-10	.1557457E-10	.5372852E-13	-.2076186E-11
X(43)	-.3054206E-06	.6767802E-11	.2544597E-07	.2002132E-10	.1232750E-08	.1708382E-11	-.6780875E-11	-.2517110E-11
X(21)	.2561176E-06	.7115428E-15	.6673293E-09	.1557457E-10	.1708382E-11	.2268338E-11	-.1075241E-13	-.1010799E-13
X(47)	-.6507637E-09	.6892727E-13	.2613625E-10	.5372852E-13	-.6780875E-11	-.1075241E-13	.4791711E-13	.3190885E-13
X(31)	-.6926484E-07	.4760945E-10	-.1691320E-07	.2076186E-11	-.2517110E-11	-.1010799E-13	.3190885E-13	.1282559E-10
X(42)	.6492971E-06	.8919770E-11	-.2584806E-07	.8172980E-10	-.3434786E-08	.3471224E-11	.1789687E-10	-.4226209E-11
X(46)	-.5643843E-08	.9791489E-13	-.1296984E-10	.2259234E-12	.1805882E-10	.2320911E-13	-.1244969E-12	-.5354761E-13
X(36)	.2033124E-09	-.2793072E-13	.5378614E-12	-.1915389E-13	.1887539E-12	.2894031E-15	.2708788E-15	.1283048E-13

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	X(42)	X(46)	X(36)
X( 7)	-.6105766E-06	.1187470E-08	.1714323E-09
X(19)	.1119825E-07	-.4149080E-10	-.1443678E-11
DC	-.2994502E-07	.2435282E-09	-.1226436E-10
X(18)	-.2403913E-07	.8350306E-11	.1063644E-10
X( 6)	.8906938E-06	.2342713E-08	-.5967270E-09
X(16)	.1416510E-05	-.8026735E-08	-.3106513E-09
X(26)	.4907051E-07	-.1572923E-08	.9951100E-10
X(10)	-.2082484E-09	.1218827E-11	.2586154E-13
X( 8)	-.2688502E-05	.2031627E-07	.9784788E-10
X(27)	-.3245089E-07	.5840712E-09	-.2341037E-10
X(11)	.2229404E-09	-.1560445E-11	.7352083E-14
X(23)	-.3618641E-10	.2550285E-12	.1514697E-14
X(13)	.7570056E-10	.3923600E-14	-.6862162E-13
X(28)	.3258263E-07	-.1843829E-09	-.3606837E-11
X(25)	.3081980E-13	-.1482770E-15	-.4772535E-17
X(20)	.2547134E-07	-.2482673E-10	-.5865982E-11
X(14)	.6492971E-06	-.6643843E-08	.2033124E-09
X(30)	.8919770E-11	.9791489E-13	-.2793072E-13
DT	-.2584806E-07	-.1296984E-10	.5378614E-12
X(15)	.8172980E-10	-.2259234E-12	-.1915389E-13
X(43)	-.3434786E-08	.1805882E-10	.1887539E-12
X(21)	-.3471224E-11	.2320911E-13	.2894031E-15
X(47)	.1789687E-10	-.1244969E-12	.2708788E-15
X(31)	-.4226209E-11	-.5354761E-13	.1283048E-13
X(42)	.1102868E-07	-.5377153E-10	-.1185847E-11
X(46)	-.5377153E-10	.3655476E-12	-.6269715E-15
X(36)	-.1185847E-11	-.6269715E-15	.1172667E-14

## ANALYSIS OF COVARIANCE TABLE

FRIDAY, JUL 2, 1976

SOURCE	DF	YY	SUM-SQUARES (DUE)	SUM-SQUARES (ABOUT)	DF	MEAN-SQUARE
TREATMENT (BETWEEN)	1	.1261130E+00			1	
ERROR (WITHIN)	768	.4880598E+01	.4872293E+01	.8304637E-02	741	.1120734E-04
TREATMENT + ERROR (TOTAL)	769	.5006711E+01	.4998291E+01	.8419326E-02	742	.1134680E-04
DIFFERENCE FOR TESTING ADJUSTED TREATMENT MEANS				.1146886E-03	1	.1146886E-03

NULL HYPOTHESIS. NO DIFFERENCE AMONG TREATMENTS AFTER  
ADJUSTING WITH COVARIATES.

F( 1, 741) = 10.233



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TABLE OF COEFFICIENTS, STANDARD ERRORS AND COMPUTED T-VALUES

TREATMENT (BETWEEN)			
COEFFICIENT	STAND. ERROR	T-VALUE	CONFIDENCE
X( 7) -.4937500000E+01	.7541970065E+04	-.00065	50.02084
X(19) .4592895508E-02			
DC .6787109175E-01	.1156418273E+03	-.00059	50.01868
X(18) -.1411132813E+00	.3547252023E+03	-.00040	50.01266
X( 6) .6468750000E+01	.6814533845E+04	.00095	50.03022
X(16) -.2812500000E+02			
X(26) -.8476562500E+00			
X(10) .5981445113E-02	.9081488891E+01	.00066	50.02097
X( 8) -.1490625000E+02			
X(27) -.1684570313E+00			
X(11) .4062652588E-03			
X(23) .6656846729E-03			
X(13) -.1373291018E-03			
X(28) .4394531250E-02	.1571360097E+03	.00003	50.00089
X(25) .4854636097E-06	.1009466851E-02	.00049	50.01562
X(20) -.4980468750E+00	.7898122010E+03	-.00063	50.02007
X(14) .3600000000E+02	.7193752027E+05	.00050	50.01593
X(30) -.1864433289E-03			
DT .2441406250E+00			
X(15) .2792359398E-02	.2075560238E+01	.00135	50.04282
X(43) .8544921875E-02	.8911957283E+01	.00096	50.03052
X(21) .6556510925E-04	.1943009886E+00	.00034	50.01074
X(47) -.4678964615E-05	.1572081388E-01	-.00030	50.00947
X(31) .1649856567E-03			
X(42) .9552001953E-02			
X(46) -.8404254913E-05	.1906491555E-01	-.00044	50.01403
X(36) -.5528330803E-05			

FRIDAY, JUL 2, 1976

TABLE OF COEFFICIENTS, STANDARD ERRORS AND COMPUTED T-VALUES

ERROR (WITHIN)			
COEFFICIENT	STAND. ERROR	T-VALUE	CONFIDENCE
X( 7) .3555386848E-01	.1422635287E-02	24.99163	100.00000
X(19) -.2523254642E-04	.1705996823E-05	-14.79050	100.00000
DC .4913271300E-03	.3368251169E-04	-14.58701	100.00000
X(18) -.6687458270E-04	.5404170480E-05	-12.37462	100.00000
X( 6) .5148570312E-01	.4496519181E-02	11.45012	100.00000
X(16) -.4154925132E-01	.3858500732E-02	-10.76824	100.00000
X(26) -.5241700453E-03	.5286830731E-04	-9.91464	100.00000
X(10) .6519163625E-05	.6682375078E-06	9.75576	100.00000
X( 8) .1640133878E+00	.1788283898E-01	-9.16643	100.00000
X(27) .1025655275E-03	.1270215885E-04	8.07465	100.00000
X(11) .3774287055E-06	.4819628854E-07	7.83107	100.00000
X(23) .6708943609E-07	.8507332046E-08	7.88607	100.00000
X(13) -.2986294606E-05	.3796551934E-07	-7.86581	100.00000
X(28) -.1188313456E-02	.1711804908E-03	-6.94187	100.00000
X(25) .1518984377E-09	.2226771748E-10	6.82146	100.00000
X(20) .5356671819E-03	.8744834855E-04	6.12546	100.00000
X(14) -.7681445512E-01	.1358962205E-01	-5.65243	100.00000
X(30) .2759776148E-06	.5011366554E-07	5.50703	100.00000
DT .4180496093E-03	.6920971176E-04	6.04033	100.00000
X(15) .1114083609E-05	.2140493136E-06	5.20480	99.99999
X(43) -.5621083340E-06	.1175408116E-06	-4.78224	99.99990
X(21) -.2218482095E-07	.5042025894E-08	-4.39998	99.99998
X(47) .2729989349E-08	.7328186723E-09	3.72533	99.98951
X(31) -.4250676926E-07	.1198919286E-07	-3.54542	99.97917
X(42) .1104011881E-05	.3515711970E-06	3.14022	99.91224
X(46) -.4234341895E-08	.2024059184E-08	-2.09200	98.16111
X(36) .2159724752E-09	.1146406449E-09	1.88391	97.00157

FRIDAY, JUL 2, 1976

TABLE OF COEFFICIENTS, STANDARD ERRORS AND COMPUTED T-VALUES

TREATMENT-ERROR (TOTAL)				
	COEFFICIENT	STAND. ERROR	T-VALUE	CONFIDENCE
X(7)	.3559846990E-01	.1431391022E-02	24.86984	100.00000
X(19)	-.2512983385E-04	.1716274552E-05	-14.64208	100.00000
DC	-.4508067751E-03	.3389103884E-04	-14.48190	100.00000
X(18)	-.6685428365E-04	.5437687156E-05	-12.29462	100.00000
X(6)	.5158089811E-01	.4524310639E-02	11.40083	100.00000
X(16)	-.4162832686E-01	.3882354165E-02	-10.72244	100.00000
X(26)	-.5305676544E-03	.5315815892E-04	-9.98093	100.00000
X(10)	.6530462256E-05	.6723729896E-06	9.71256	100.00000
X(8)	-.1635975263E+00	.1800334763E-01	-9.08706	100.00000
X(27)	.1047558767E-03	.1276236403E-04	8.20819	100.00000
X(11)	.3787865356E-06	.4449335473E-07	7.81110	100.00000
X(23)	.6638924334E-07	.8557266753E-08	7.75823	100.00000
X(13)	-.2816124516E-06	.3782416330E-07	-7.44531	100.00000
X(28)	-.1194748623E-02	.1722303775E-03	-6.93692	100.00000
X(25)	.1518970449E-08	.2240583725E-10	6.77935	100.00000
X(20)	.5337462909E-03	.8798969595E-04	6.06601	100.00000
X(14)	-.7711871951E-01	.1367358043E-01	-5.63998	100.00000
X(30)	.2807032514E-06	.5040259262E-07	5.56922	100.00000
DT	.3638158090E-03	.6751733032E-04	5.38848	100.00000
X(15)	.1103057631E-05	.2153490717E-06	5.12218	99.99998
X(43)	-.5662642552E-06	.1182626572E-06	-4.78819	99.99990
X(21)	-.2225205614E-07	.5073255867E-08	-4.38615	99.99934
X(47)	.2753726771E-08	.7373263211E-09	3.73475	99.98988
X(31)	-.4431177295E-07	.1205019085E-07	-3.67727	99.98736
X(42)	.1111822856E-05	.3537433544E-06	3.14302	99.91307
X(46)	-.4248912395E-08	.2036608650E-08	-2.08627	98.13524
X(36)	.2112297319E-09	.1153420792E-09	1.83133	96.62742

TABLE OF ADJUSTED MEANS AND STANDARD ERRORS

FRIDAY, JUL 2, 1976

TREATMENT NO.	TREATMENT MEAN	ADJUSTED MEAN	SE ADJUSTED
1	.4055491E+00	.3941703E+00	.3054607E-03
2	.3799314E+00	.3922970E+00	.3279592E-03

FRIDAY, JUL 2, 1976

## TABLE OF INTERCEPTS

INTERCEPT = -.510084001E+01  
(BETWEEN)INTERCEPT = .3524255916E+00  
(TOTAL)

TREATMENT NO.	INTERCEPT (WITHIN)
1	.3532068342E+00
2	.3513335574E+00

FRIDAY, JUL 2, 1976

## TABLE OF RESIDUALS (WITHIN)

CASE NO.	Y VALUE	Y ESTIMATE	RESIDUAL	PERCENT VARIATION	GROUP NO.
1	.3265000E+00	.3121919E+00	.1430809E-01	4.58	1
2	.3436000E+00	.3352483E+00	.8351668E-02	2.49	1
3	.3605000E+00	.3578903E+00	.2609731E-02	.73	1
4	.3802000E+00	.3807374E+00	-.5374150E-03	-.16	1
5	.4021000E+00	.4070981E+00	-.4998074E-02	-1.23	1
6	.4315000E+00	.4357605E+00	-.4260536E-02	-.98	1
7	.4661000E+00	.4665851E+00	-.4851279E-03	-.10	1
8	.5010000E+00	.4994457E+00	.1554285E-02	.31	1
9	.5415000E+00	.5382322E+00	.3267766E-02	1.36	1
10	.5491000E+00	.5414120E+00	.7687999E-02	1.42	1
11	.5504000E+00	.5485642E+00	.1735766E-02	.32	1
12	.5501000E+00	.5559882E+00	-.5888248E-02	-1.06	1
13	.5536000E+00	.5633834E+00	-.9783376E-02	-1.74	1
14	.3298000E+00	.3209558E+00	.8844211E-02	2.76	1
15	.3458000E+00	.3500868E+00	-.4286808E-02	-1.22	1
16	.3704000E+00	.3741261E+00	-.3726139E-02	-1.00	1
17	.3989000E+00	.4007396E+00	-.1839611E-02	-.46	1
18	.4296000E+00	.4300144E+00	-.4144030E-03	-.10	1
19	.4608000E+00	.4618178E+00	-.1017793E-02	-.22	1
20	.4952000E+00	.4960000E+00	-.7999985E-03	-.16	1
21	.5440000E+00	.5324243E+00	.1157567E-01	2.17	1
22	.5491000E+00	.5399674E+00	.9132583E-02	1.69	1
23	.5499000E+00	.5475945E+00	.2305536E-02	.42	1
24	.5499000E+00	.5553046E+00	-.5404613E-02	-.97	1
25	.5549000E+00	.5630970E+00	-.8197030E-02	-1.46	1
26	.3320000E+00	.3263897E+00	.5610316E-02	1.72	1
27	.3515000E+00	.3539539E+00	-.2453893E-02	-.69	1
28	.3814000E+00	.3818866E+00	-.4866290E-03	-.13	1
29	.4114000E+00	.4096431E+00	.1756896E-02	.43	1
30	.4406000E+00	.4401707E+00	.4293099E-03	.10	1
31	.4730000E+00	.4729224E+00	.7760901E-04	.02	1
32	.5128000E+00	.5089716E+00	.3828437E-02	.75	1
33	.5499000E+00	.5469471E+00	.2952924E-02	.54	1
34	.5510000E+00	.5548112E+00	-.3811225E-02	-.69	1
35	.5561000E+00	.5627629E+00	-.6662855E-02	-1.18	1
36	.3453000E+00	.3374766E+00	.7823430E-02	2.32	1
37	.3728000E+00	.3700828E+00	.2717237E-02	.75	1
38	.4011000E+00	.3970458E+00	.4054200E-02	1.02	1
39	.4282000E+00	.4269152E+00	.1284795E-02	.30	1
40	.4568000E+00	.4597826E+00	-.2982637E-02	-.65	1
41	.4941000E+00	.4954965E+00	-.1396470E-02	-.28	1
42	.5441000E+00	.5338871E+00	.1021290E-01	1.91	1
43	.5490000E+00	.5418725E+00	.7127492E-02	1.32	1
44	.5503000E+00	.5499576E+00	.3423874E-03	.06	1
45	.3618000E+00	.3530249E+00	.8775069E-02	2.49	1
46	.3895000E+00	.3882818E+00	.1218209E-02	.31	1
47	.4200000E+00	.4197258E+00	.2742454E-03	.07	1
48	.4440000E+00	.4443637E+00	-.3637389E-03	-.08	1
49	.4850000E+00	.4853864E+00	-.3864349E-03	-.08	1
50	.5252000E+00	.5243064E+00	.8936132E-03	.17	1

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TABLE OF RESIDUALS (WITHIN)

CASE NO.	Y VALUE	Y ESTIMATE	RESIDUAL	PERCENT VARIATION	GROUP NO.
51	.5353000E+00	.5324501E+00	.2849939E-02	.54	1
52	.2986000E+00	.2934517E+00	.5148326E-02	1.75	1
53	.3170000E+00	.3164811E+00	.5188858E-03	.16	1
54	.3345000E+00	.3361362E+00	-.1636200E-02	-.49	1
55	.3545000E+00	.3561963E+00	-.1696323E-02	-.48	1
56	.3818000E+00	.3824290E+00	-.6290195E-03	-.16	1
57	.4091000E+00	.4089261E+00	.1738620E-03	.04	1
58	.4375000E+00	.4385246E+00	-.1024609E-02	-.23	1
59	.4667000E+00	.4679334E+00	-.1233430E-02	-.26	1
60	.4960000E+00	.5002125E+00	-.4212476E-02	-.84	1
61	.5029000E+00	.5068777E+00	-.3977691E-02	-.78	1
62	.5100000E+00	.5136111E+00	-.3611085E-02	-.70	1
63	.5183000E+00	.5204120E+00	-.2112001E-02	-.41	1
64	.3036000E+00	.3032882E+00	.3118248E-03	.10	1
65	.3272000E+00	.3295495E+00	-.2349469E-02	-.71	1
66	.3527000E+00	.3516854E+00	.1014555E-02	.29	1
67	.3778000E+00	.3763509E+00	.1449103E-02	.39	1
68	.4018000E+00	.4035752E+00	-.1775228E-02	-.44	1
69	.4279000E+00	.4332133E+00	-.5313274E-02	-1.23	1
70	.4579000E+00	.4651138E+00	-.7213751E-02	-1.55	1
71	.4978000E+00	.4991419E+00	-.1341924E-02	-.27	1
72	.5044000E+00	.5061923E+00	-.1792314E-02	-.35	1
73	.5117000E+00	.5135222E+00	-.1822237E-02	-.32	1
74	.3128000E+00	.3078604E+00	.4939589E-02	1.60	1
75	.3360000E+00	.3354088E+00	.5911673E-03	.18	1
76	.3615000E+00	.3585843E+00	.2915725E-02	.81	1
77	.3844000E+00	.3843927E+00	.7269731E-05	.00	1
78	.4101000E+00	.4128669E+00	-.2769855E-02	-.67	1
79	.4384000E+00	.4438659E+00	-.5465866E-02	-1.23	1
80	.4719000E+00	.4772237E+00	-.5323656E-02	-1.12	1
81	.4802000E+00	.4841660E+00	-.3965950E-02	-.82	1
82	.4891000E+00	.4911960E+00	-.2096018E-02	-.43	1
83	.4975000E+00	.4983129E+00	-.8128596E-03	-.08	1
84	.5061000E+00	.5055155E+00	.5844953E-03	.12	1
85	.5132000E+00	.5128030E+00	.3969893E-03	.08	1
86	.3260000E+00	.3203566E+00	.5643407E-02	1.76	1
87	.3472000E+00	.3468618E+00	.3381711E-03	.10	1
88	.3727000E+00	.3719215E+00	.7784887E-03	.21	1
89	.3997000E+00	.3998429E+00	-.1428963E-03	-.04	1
90	.4267000E+00	.4306599E+00	-.3959867E-02	-.92	1
91	.4596000E+00	.4642084E+00	-.4608356E-02	-.99	1
92	.4670000E+00	.4712305E+00	-.4230485E-02	-.90	1
93	.4741000E+00	.4783537E+00	-.4253676E-02	-.89	1
94	.4822000E+00	.4855767E+00	-.3376674E-02	-.70	1
95	.4912000E+00	.4928983E+00	-.1698262E-02	-.34	1
96	.5012000E+00	.5003173E+00	.8827467E-03	.18	1
97	.3384000E+00	.3300093E+00	.8390706E-02	2.54	1
98	.3623000E+00	.3620644E+00	.2356109E-03	.07	1
99	.3900000E+00	.3893616E+00	.6384438E-03	.16	1
100	.4171000E+00	.4198710E+00	-.2770998E-02	-.66	1

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TABLE OF RESIDUALS (WITHIN)

CASE NO.	Y VALUE	Y ESTIMATE	RESIDUAL	PERCENT VARIATION	GROUP NO.
101	.4491000E+00	.4535992E+00	-.4499236E-02	-.99	1
102	.4558000E+00	.4607145E+00	-.4914540E-02	-1.07	1
103	.4634000E+00	.4679492E+00	-.4549237E-02	-.97	1
104	.4712000E+00	.4753017E+00	-.4101727E-02	-.86	1
105	.4791000E+00	.4827704E+00	-.3670440E-02	-.76	1
106	.2671000E+00	.2680996E+00	-.9996364E-03	-.37	1
107	.2861000E+00	.2857454E+00	.3545784E-03	.12	1
108	.3049000E+00	.3022443E+00	.2655656E-02	.88	1
109	.3231000E+00	.3211734E+00	.1926649E-02	.60	1
110	.3416000E+00	.3423802E+00	-.7802220E-03	-.23	1
111	.3635000E+00	.3656782E+00	-.2178204E-02	-.60	1
112	.3885000E+00	.3909088E+00	-.2008800E-02	-.51	1
113	.4186000E+00	.4179412E+00	.6587662E-03	.16	1
114	.4238000E+00	.4235540E+00	.2459638E-03	.06	1
115	.4294000E+00	.4292337E+00	.1662776E-03	.04	1
116	.4352000E+00	.4349795E+00	.2204840E-03	.05	1
117	.4411000E+00	.4407907E+00	.3092550E-03	.07	1
118	.4473000E+00	.4466666E+00	.6333600E-03	.14	1
119	.2784000E+00	.2752754E+00	.3124612E-02	1.14	1
120	.3000000E+00	.2961530E+00	.3846974E-02	1.30	1
121	.3168000E+00	.3151328E+00	.1667161E-02	.53	1
122	.3363000E+00	.3367447E+00	-.4446762E-03	-.13	1
123	.3584000E+00	.3608657E+00	-.2465680E-02	-.68	1
124	.3838000E+00	.3873046E+00	-.3504590E-02	-.90	1
125	.4138000E+00	.4158928E+00	-.2092800E-02	-.50	1
126	.4205000E+00	.4218555E+00	-.1355489E-02	-.32	1
127	.4271000E+00	.4278974E+00	-.7974129E-03	-.19	1
128	.4338000E+00	.4340176E+00	-.2175935E-03	-.05	1
129	.4410000E+00	.4402151E+00	.7849138E-03	.18	1
130	.4488000E+00	.4464890E+00	.2311023E-02	.52	1
131	.2847000E+00	.2816290E+00	.3070959E-02	1.09	1
132	.3052000E+00	.3009065E+00	.4293463E-02	1.43	1
133	.3229000E+00	.3209258E+00	.1974183E-02	.62	1
134	.3432000E+00	.3436807E+00	-.4806569E-03	-.14	1
135	.3670000E+00	.3690545E+00	-.2054454E-02	-.56	1
136	.3943000E+00	.3968513E+00	-.2551329E-02	-.64	1
137	.4259000E+00	.4268969E+00	-.9968517E-03	-.23	1
138	.4327000E+00	.4331624E+00	-.4624326E-03	-.11	1
139	.4386000E+00	.4395110E+00	-.8904020E-04	.02	1
140	.2903000E+00	.2860216E+00	.4278416E-02	1.50	1
141	.3126000E+00	.3103744E+00	.2225605E-02	.72	1
142	.3345000E+00	.3322779E+00	.2222086E-02	.67	1
143	.3575000E+00	.3571457E+00	.3543155E-03	.10	1
144	.3845000E+00	.3848593E+00	-.3593286E-03	-.09	1
145	.4153000E+00	.4152087E+00	.9131939E-04	.02	1
146	.4216000E+00	.4215777E+00	.2228313E-04	.01	1
147	.4283000E+00	.4280432E+00	.2568120E-03	.06	1
148	.3020000E+00	.2965857E+00	.5414329E-02	1.83	1
149	.3250000E+00	.3232571E+00	.1742889E-02	.54	1
150	.3496000E+00	.3473981E+00	.2201885E-02	.63	1

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TABLE OF RESIDUALS (WITHIN)

CASE NO.	Y VALUE	Y ESTIMATE	RESIDUAL	PERCENT VARIATION	GROUP NO.
151	.3760000E+00	.3748539E+00	.1146058E-02	.31	1
152	.4065000E+00	.4054789E+00	.1021147E-02	.25	1
153	.4126000E+00	.4119628E+00	.6372136E-03	.15	1
154	.2520000E+00	.2513382E+00	.6618035E-03	.26	1
155	.2647000E+00	.2640747E+00	.6252796E-03	.24	1
156	.2782000E+00	.2782849E+00	-.8487451E-04	-.03	1
157	.2939000E+00	.2952835E+00	-.1383501E-02	-.47	1
158	.3116000E+00	.3147172E+00	-.3117174E-02	-.99	1
159	.3340000E+00	.3363248E+00	-.2324753E-02	-.69	1
160	.3577000E+00	.3599113E+00	-.2211335E-02	-.61	1
161	.3858000E+00	.3853255E+00	.4744667E-03	.12	1
162	.3908000E+00	.3908166E+00	-.1834327E-03	-.05	1
163	.3962000E+00	.3959749E+00	.2250851E-03	.06	1
164	.4018000E+00	.4013897E+00	.5002513E-03	.12	1
165	.2585000E+00	.2570259E+00	.1474146E-02	.57	1
166	.2734000E+00	.2729942E+00	.4057689E-03	.15	1
167	.2897000E+00	.2896853E+00	.1472419E-04	.01	1
168	.3083000E+00	.3093667E+00	-.1066732E-02	-.34	1
169	.3298000E+00	.3317145E+00	-.1914538E-02	-.58	1
170	.3519000E+00	.3564630E+00	-.2563045E-02	-.72	1
171	.3822000E+00	.3834072E+00	-.1207241E-02	-.31	1
172	.3884000E+00	.3890447E+00	-.6447129E-03	-.17	1
173	.3948000E+00	.3947623E+00	.3769196E-04	.01	1
174	.2619000E+00	.2602097E+00	.1690327E-02	.65	1
175	.2783000E+00	.2774652E+00	.8348212E-03	.30	1
176	.2956000E+00	.2951957E+00	.4043102E-03	.14	1
177	.3160000E+00	.3160201E+00	-.2014964E-04	-.01	1
178	.3382000E+00	.3396207E+00	-.1420748E-02	-.42	1
179	.3639000E+00	.3657272E+00	-.1827220E-02	-.50	1
180	.3696000E+00	.3712298E+00	-.1629810E-02	-.44	1
181	.3754000E+00	.3768226E+00	-.1422613E-02	-.38	1
182	.3815000E+00	.3825042E+00	-.1004243E-02	-.26	1
183	.3878000E+00	.3882734E+00	-.4733728E-03	-.12	1
184	.2691000E+00	.2677160E+00	.1384011E-02	.52	1
185	.2887000E+00	.2871595E+00	.1540461E-02	.54	1
186	.3083000E+00	.3067743E+00	.1525710E-02	.50	1
187	.3304000E+00	.3297117E+00	.6883198E-03	.21	1
188	.3550000E+00	.3556521E+00	-.6521256E-03	-.18	1
189	.3605000E+00	.3611744E+00	-.6744023E-03	-.19	1
190	.3661000E+00	.3668033E+00	-.7032622E-03	-.19	1
191	.3719000E+00	.3725368E+00	-.6368360E-03	-.17	1
192	.3779000E+00	.3783733E+00	-.4733408E-03	-.13	1
193	.2821000E+00	.2821601E+00	-.6012924E-04	-.02	1
194	.3033000E+00	.3017344E+00	.1565572E-02	.52	1
195	.3236000E+00	.3235867E+00	.1333615E-04	.00	1
196	.3477000E+00	.3491121E+00	-.1412111E-02	-.40	1
197	.3529000E+00	.3546274E+00	-.1727388E-02	-.49	1
198	.3584000E+00	.3602728E+00	-.1872758E-02	-.52	1
199	.3641000E+00	.3660456E+00	-.1945600E-02	-.53	1
200	.3057000E+00	.3051117E+00	.5883270E-03	.19	2

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TABLE OF RESIDUALS (WITHIN)

CASE NO.	Y VALUE	Y ESTIMATE	RESIDUAL	PERCENT VARIATION	GROUP NO.
201	.3284000E+00	.3254274E+00	.2972619E-02	.91	2
202	.3476000E+00	.3457866E+00	.1813409E-02	.52	2
203	.3715000E+00	.3722924E+00	-.7924230E-03	-.21	2
204	.3930000E+00	.3964179E+00	-.3417903E-02	-.86	2
205	.4240000E+00	.4268189E+00	-.2818932E-02	-.66	2
206	.4592000E+00	.4583143E+00	.8856783E-03	.19	2
207	.4919000E+00	.4929349E+00	-.1034939E-02	-.21	2
208	.5292000E+00	.5297915E+00	-.5915264E-03	-.11	2
209	.5419000E+00	.5374197E+00	.4480293E-02	.83	2
210	.5488000E+00	.5451313E+00	.3668683E-02	.67	2
211	.5498000E+00	.5529255E+00	-.3125476E-02	-.57	2
212	.3094000E+00	.3176729E+00	-.8272940E-02	-2.60	2
213	.3344000E+00	.3412205E+00	-.6820500E-02	-2.00	2
214	.3620000E+00	.3640606E+00	-.2060801E-02	-.57	2
215	.3920000E+00	.3905135E+00	.1486531E-02	.38	2
216	.4220000E+00	.4202889E+00	.1711124E-02	.41	2
217	.4503000E+00	.4530924E+00	-.2792430E-02	-.82	2
218	.4854000E+00	.4886838E+00	-.3283816E-02	-.67	2
219	.5325000E+00	.5268682E+00	.5631803E-02	1.07	2
220	.5439000E+00	.5348016E+00	.9098413E-02	1.70	2
221	.5484000E+00	.5428310E+00	.6568962E-02	1.21	2
222	.5502000E+00	.5509554E+00	-.7554399E-03	-.14	2
223	.3174000E+00	.3234727E+00	-.6072717E-02	-1.88	2
224	.3455000E+00	.3483074E+00	-.2807407E-02	-.81	2
225	.3743000E+00	.3721870E+00	.2113027E-02	.57	2
226	.4040000E+00	.3987828E+00	.4217156E-02	1.05	2
227	.4350000E+00	.4339338E+00	.1066211E-02	.25	2
228	.4650000E+00	.4683801E+00	-.3380075E-02	-.72	2
229	.5026000E+00	.5020213E+00	.5787171E-03	.12	2
230	.5495000E+00	.5417568E+00	.7743174E-02	1.43	2
231	.5498000E+00	.5500113E+00	-.2112768E-03	-.04	2
232	.3364000E+00	.3351489E+00	.1251056E-02	.37	2
233	.3647000E+00	.3621717E+00	.2528322E-02	.70	2
234	.3935000E+00	.3879355E+00	.5564515E-02	1.43	2
235	.4180000E+00	.4150241E+00	.2975862E-02	.72	2
236	.4480000E+00	.4472720E+00	.7279531E-03	.16	2
237	.4892000E+00	.4877263E+00	.1473670E-02	.30	2
238	.4987000E+00	.4954468E+00	.3253158E-02	.66	2
239	.5068000E+00	.5032888E+00	.3511194E-02	.70	2
240	.5156000E+00	.5112505E+00	.4349539E-02	.85	2
241	.5257000E+00	.5193301E+00	.6369880E-02	1.23	2
242	.5361000E+00	.5275262E+00	.8573844E-02	1.63	2
243	.3532000E+00	.3512548E+00	.1945233E-02	.55	2
244	.3807000E+00	.3805961E+00	.1038701E-03	.03	2
245	.4070000E+00	.4085974E+00	-.1597421E-02	-.39	2
246	.4382000E+00	.4408943E+00	-.2694279E-02	-.61	2
247	.4759000E+00	.4771736E+00	-.1273593E-02	-.27	2
248	.4854000E+00	.4848763E+00	.5237318E-03	.11	2
249	.4939000E+00	.4927219E+00	.1178078E-02	.24	2
250	.5022000E+00	.5007082E+00	.1491799E-02	.30	2

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TABLE OF RESIDUALS (WITHIN)

CASE NO.	Y VALUE	Y ESTIMATE	RESIDUAL	PERCENT VARIATION	GROUP NO.
251	.5103000E+00	.5088329E+00	.1467148E-02	.29	2
252	.5189000E+00	.5170937E+00	.1806290E-02	.35	2
253	.2848000E+00	.2892772E+00	-.4477158E-02	-1.55	2
254	.3048000E+00	.3073382E+00	-.2538170E-02	-.83	2
255	.3275000E+00	.3264518E+00	.1048235E-02	.32	2
256	.3474000E+00	.3472962E+00	.1037796E-03	.03	2
257	.3734000E+00	.3717081E+00	.1691890E-02	.46	2
258	.3985000E+00	.3986961E+00	-.1960830E-03	-.05	2
259	.4261000E+00	.4280451E+00	-.1945126E-02	-.45	2
260	.4579000E+00	.4611380E+00	-.3238002E-02	-.70	2
261	.4898000E+00	.4931731E+00	-.3573082E-02	-.72	2
262	.4965000E+00	.5001263E+00	-.3626334E-02	-.73	2
263	.2948000E+00	.3000683E+00	-.5268304E-02	-1.76	2
264	.3197000E+00	.3213612E+00	-.1661168E-02	-.52	2
265	.3445000E+00	.3422383E+00	.2261706E-02	.66	2
266	.3644000E+00	.3664829E+00	-.8233922E-04	-.02	2
267	.3913000E+00	.3938090E+00	-.2508962E-02	-.64	2
268	.4213000E+00	.4238379E+00	-.2637863E-02	-.62	2
269	.4521000E+00	.4566445E+00	-.4544520E-02	-1.00	2
270	.4912000E+00	.4917471E+00	-.5471497E-03	-.11	2
271	.4981000E+00	.4990416E+00	-.9415704E-03	-.19	2
272	.3015000E+00	.3050064E+00	-.3506421E-02	-1.15	2
273	.3269000E+00	.3275864E+00	-.6864143E-03	-.21	2
274	.3505000E+00	.3495030E+00	.9969936E-03	.29	2
275	.3736000E+00	.3744907E+00	-.1290655E-02	-.34	2
276	.4019000E+00	.4034695E+00	-.1569471E-02	-.39	2
277	.4310000E+00	.4349563E+00	-.3956337E-02	-.91	2
278	.4652000E+00	.4691203E+00	-.3920306E-02	-.84	2
279	.4732000E+00	.4762572E+00	-.3057235E-02	-.64	2
280	.4816000E+00	.4834923E+00	-.1892331E-02	-.39	2
281	.4901000E+00	.4908243E+00	-.7243208E-03	-.15	2
282	.3116000E+00	.3148607E+00	-.3260713E-02	-1.04	2
283	.3365000E+00	.3396288E+00	-.3128751E-02	-.92	2
284	.3633000E+00	.3634296E+00	-.1295833E-03	-.04	2
285	.3909000E+00	.3909302E+00	-.3016176E-04	-.01	2
286	.4195000E+00	.4218488E+00	-.2348825E-02	-.56	2
287	.4522000E+00	.4558882E+00	-.3688168E-02	-.81	2
288	.4597000E+00	.4630481E+00	-.3348088E-02	-.72	2
289	.4676000E+00	.4703212E+00	-.2721174E-02	-.58	2
290	.4780000E+00	.4777058E+00	.1705775E-02	.36	2
291	.3263000E+00	.3283021E+00	-.2002108E-02	-.61	2
292	.3533000E+00	.3553888E+00	-.2088774E-02	-.59	2
293	.3810000E+00	.3814271E+00	-.4270908E-03	-.11	2
294	.4100000E+00	.4115197E+00	-.1515726E-02	-.37	2
295	.4418000E+00	.4453457E+00	-.3545656E-02	-.80	2
296	.4490000E+00	.4525309E+00	-.3530909E-02	-.78	2
297	.4565000E+00	.4598503E+00	-.3350262E-02	-.73	2
298	.2613000E+00	.2640511E+00	-.2751076E-02	-1.04	2
299	.2780000E+00	.2774107E+00	.5883218E-03	.21	2
300	.2955000E+00	.2926731E+00	.2826853E-02	.97	2

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TABLE OF RESIDUALS (WITHIN)

CASE NO.	Y VALUE	Y ESTIMATE	RESIDUAL	PERCENT VARIATION	GROUP NO.
301	.3128000E+00	.3110210E+00	.1778964E-02	.57	2
302	.3321000E+00	.3320458E+00	.1054169E-02	.32	2
303	.3547000E+00	.3554540E+00	-.7540126E-03	-.21	2
304	.3806000E+00	.3810286E+00	-.4286494E-03	-.11	2
305	.4117000E+00	.4086021E+00	.3097897E-02	.76	2
306	.4171000E+00	.4142444E+00	.2756628E-02	.67	2
307	.4230000E+00	.4201602E+00	.2839798E-02	.68	2
308	.4292000E+00	.4260487E+00	.3151318E-02	.74	2
309	.4356000E+00	.4320089E+00	.3591068E-02	.83	2
310	.2711000E+00	.2721815E+00	-.1081472E-02	-.40	2
311	.2892000E+00	.2887729E+00	.4270732E-03	.15	2
312	.3076000E+00	.3065163E+00	.1083714E-02	.35	2
313	.3278000E+00	.3275470E+00	.2529950E-03	.08	2
314	.3501000E+00	.3514859E+00	-.1385933E-02	-.39	2
315	.3763000E+00	.3780350E+00	-.1735043E-02	-.46	2
316	.4072000E+00	.4069673E+00	.2327067E-03	.06	2
317	.4139000E+00	.4130234E+00	.8766330E-03	.21	2
318	.4212000E+00	.4191663E+00	.2033709E-02	.49	2
319	.4284000E+00	.4253949E+00	.3005125E-02	.71	2
320	.2745000E+00	.2760137E+00	-.1513736E-02	-.55	2
321	.2956000E+00	.2938923E+00	.1707680E-02	.58	2
322	.3141000E+00	.3126751E+00	.1424854E-02	.46	2
323	.3351000E+00	.3348489E+00	.2511324E-03	.07	2
324	.3590000E+00	.3600406E+00	-.1040589E-02	-.29	2
325	.3874000E+00	.3879477E+00	-.5476637E-03	-.14	2
326	.3936000E+00	.3938335E+00	-.2334529E-03	-.06	2
327	.4000000E+00	.3998168E+00	.1832065E-03	.05	2
328	.4066000E+00	.4058962E+00	.7038372E-03	.17	2
329	.4135000E+00	.4120701E+00	.1428895E-02	.35	2
330	.4205000E+00	.4183372E+00	.2162773E-02	.52	2
331	.2825000E+00	.2838829E+00	-.1382890E-02	-.49	2
332	.3044000E+00	.3039495E+00	.4504813E-03	.15	2
333	.3265000E+00	.3246168E+00	.1883416E-02	.58	2
334	.3499000E+00	.3489032E+00	.9967638E-03	.29	2
335	.3773000E+00	.3764348E+00	.8651954E-03	.23	2
336	.3833000E+00	.3823013E+00	.9987428E-03	.26	2
337	.3895000E+00	.3882824E+00	.1217556E-02	.31	2
338	.3959000E+00	.3943763E+00	.1523689E-02	.39	2
339	.4026000E+00	.4005809E+00	.2019097E-02	.50	2
340	.4095000E+00	.4068944E+00	.2605644E-02	.64	2
341	.2929000E+00	.2950044E+00	-.2104440E-02	-.71	2
342	.3172000E+00	.3173897E+00	-.1896971E-03	-.06	2
343	.3424000E+00	.3402942E+00	.2105753E-02	.62	2
344	.3691000E+00	.3671690E+00	.1931044E-02	.53	2
345	.3750000E+00	.3729844E+00	.2015645E-02	.54	2
346	.3811000E+00	.3789392E+00	.2160842E-02	.57	2
347	.3873000E+00	.3850305E+00	.2269525E-02	.59	2
348	.3937000E+00	.3912556E+00	.2444443E-02	.62	2
349	.2456000E+00	.2474156E+00	-.1815591E-02	-.73	2
350	.2555000E+00	.2558178E+00	-.3177614E-03	-.12	2

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TABLE OF RESIDUALS (WITHIN)

CASE NO.	Y VALUE	Y ESTIMATE	RESIDUAL	PERCENT VARIATION	GROUP NO.
351	.2705000E+00	.2690027E+00	.1497291E-02	.56	2
352	.2863000E+00	.2857400E+00	.5599717E-03	.20	2
353	.3042000E+00	.3053933E+00	-.1193293E-02	-.39	2
354	.3253000E+00	.3275810E+00	-.2281039E-02	-.70	2
355	.3506000E+00	.3520414E+00	-.1441393E-02	-.41	2
356	.3797000E+00	.3785801E+00	.1119880E-02	.30	2
357	.3849000E+00	.3841234E+00	.7766403E-03	.20	2
358	.3905000E+00	.3897425E+00	.7574718E-03	.19	2
359	.2521000E+00	.2540579E+00	-.1957893E-02	-.77	2
360	.2651000E+00	.2656919E+00	-.5919162E-03	-.22	2
361	.2819000E+00	.2813578E+00	.5422459E-03	.19	2
362	.3009000E+00	.3007779E+00	.1220965E-03	.04	2
363	.3228000E+00	.3233453E+00	-.5453017E-03	-.17	2
364	.3472000E+00	.3486740E+00	-.1473975E-02	-.42	2
365	.3761000E+00	.3764919E+00	-.3919435E-03	-.10	2
366	.3824000E+00	.3823354E+00	.6463978E-04	.02	2
367	.2557000E+00	.2576076E+00	-.1907594E-02	-.74	2
368	.2701000E+00	.2705287E+00	-.4287459E-03	-.16	2
369	.2881000E+00	.2872341E+00	.8659500E-03	.30	2
370	.3087000E+00	.3077972E+00	.9027974E-03	.29	2
371	.3323000E+00	.3318174E+00	.6826057E-03	.21	2
372	.3576000E+00	.3583040E+00	-.7040324E-03	-.20	2
373	.3834000E+00	.3839595E+00	-.5595079E-03	-.15	2
374	.2694000E+00	.2697165E+00	-.3164789E-03	-.09	2
375	.3756000E+00	.3755732E+00	.2680236E-04	.01	2
376	.2634000E+00	.2657033E+00	-.2303251E-02	-.87	2
377	.2807000E+00	.2808124E+00	-.1124475E-03	-.04	2
378	.3012000E+00	.2994020E+00	.1798009E-02	.60	2
379	.3238000E+00	.3220781E+00	.1721926E-02	.53	2
380	.3490000E+00	.3482381E+00	.7618876E-03	.22	2
381	.3545000E+00	.3538502E+00	.6487877E-03	.18	2
382	.3602000E+00	.3595825E+00	.6174594E-03	.17	2
383	.2737000E+00	.2785170E+00	-.4816974E-02	-1.73	2
384	.2967000E+00	.2959448E+00	.7552010E-03	.26	2
385	.3173000E+00	.3167718E+00	.5281724E-03	.17	2
386	.3419000E+00	.3420360E+00	-.1359672E-03	-.04	2
387	.3475000E+00	.3475617E+00	-.6173733E-04	-.02	2
388	.2936000E+00	.2919199E+00	.1680051E-02	.58	2
389	.3129000E+00	.3129549E+00	-.5486127E-04	-.02	2
390	.3347000E+00	.3339818E+00	.7182096E-03	.22	2
391	.3605000E+00	.3610242E+00	-.5242403E-03	-.15	2
392	.3864000E+00	.3862336E+00	.1664203E-03	.04	2
393	.4193000E+00	.4168359E+00	.2464089E-02	.59	2
394	.4488000E+00	.4500870E+00	-.1286974E-02	-.29	2
395	.4844000E+00	.4857972E+00	-.1397214E-02	-.29	2
396	.5174000E+00	.5238114E+00	-.6411430E-02	-1.22	2
397	.5285000E+00	.5316790E+00	-.3178963E-02	-.60	2
398	.5401000E+00	.5396325E+00	.4675295E-03	.09	2
399	.3018000E+00	.3054359E+00	-.3635860E-02	-1.19	2
400	.3281000E+00	.3297026E+00	-.1602625E-02	-.49	2

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TABLE OF RESIDUALS (WITHIN)

CASE NO.	Y VALUE	Y ESTIMATE	RESIDUAL	PERCENT VARIATION	GROUP NO.
401	.3556000E+00	.3532104E+00	.2389556E-02	.68	2
402	.3846000E+00	.3804279E+00	.4172055E-02	1.10	2
403	.4131000E+00	.4110592E+00	.2040803E-02	.50	2
404	.4395000E+00	.4448025E+00	-.5302455E-02	-1.19	2
405	.4778000E+00	.4814111E+00	-.3611132E-02	-.75	2
406	.5189000E+00	.5206851E+00	-.1785117E-02	-.34	2
407	.5315000E+00	.5288447E+00	.2655282E-02	.50	2
408	.3108000E+00	.3116015E+00	-.8015191E-03	-.26	2
409	.3382000E+00	.3371554E+00	.1044587E-02	.31	2
410	.3666000E+00	.3617027E+00	.4897301E-02	1.35	2
411	.3954000E+00	.3900632E+00	.5336797E-02	1.37	2
412	.4210000E+00	.4203538E+00	.6462080E-03	.15	2
413	.4528000E+00	.4570485E+00	-.4248472E-02	-.93	2
414	.4953000E+00	.4951145E+00	.1855391E-03	.04	2
415	.5054000E+00	.5030646E+00	.2335352E-02	.46	2
416	.5147000E+00	.5111236E+00	.3576366E-02	.70	2
417	.5232000E+00	.5192900E+00	.3909981E-02	.75	2
418	.5332000E+00	.5275625E+00	.5637549E-02	1.07	2
419	.3263000E+00	.3238671E+00	.2432913E-02	.75	2
420	.3538000E+00	.3516090E+00	.2190974E-02	.62	2
421	.3820000E+00	.3780406E+00	.3959449E-02	1.05	2
422	.4092000E+00	.4085140E+00	.6860147E-03	.17	2
423	.4405000E+00	.4427379E+00	-.2237877E-02	-.51	2
424	.4796000E+00	.4803916E+00	-.7915782E-03	-.16	2
425	.4892000E+00	.4883095E+00	.8904793E-03	.18	2
426	.4992000E+00	.4963520E+00	.2848032E-02	.57	2
427	.5081000E+00	.5045171E+00	.3582880E-02	.71	2
428	.5176000E+00	.5128032E+00	.4796756E-02	.94	2
429	.3393000E+00	.3405304E+00	-.1230373E-02	-.36	2
430	.3693000E+00	.3705909E+00	-.1290940E-02	-.35	2
431	.3997000E+00	.3992600E+00	.4400498E-03	.11	2
432	.4302000E+00	.4323214E+00	-.2121441E-02	-.49	2
433	.4671000E+00	.4694566E+00	-.2356600E-02	-.50	2
434	.4761000E+00	.4773407E+00	-.1240725E-02	-.26	2
435	.4856000E+00	.4853711E+00	.2288744E-03	.05	2
436	.2747000E+00	.2765263E+00	-.1826277E-02	-.66	2
437	.2919000E+00	.2959215E+00	-.4021522E-02	-1.36	2
438	.3168000E+00	.3149259E+00	.1874144E-02	.60	2
439	.3400000E+00	.3369921E+00	.3007897E-02	.89	2
440	.3632000E+00	.3618609E+00	.1339085E-02	.37	2
441	.3879000E+00	.3884625E+00	-.5624882E-03	-.14	2
442	.4187000E+00	.4190426E+00	-.3425738E-03	-.08	2
443	.4523000E+00	.4509855E+00	.1314489E-02	.29	2
444	.4580000E+00	.4576233E+00	.3767313E-03	.08	2
445	.4641000E+00	.4643417E+00	-.2417353E-03	-.05	2
446	.4704000E+00	.4711400E+00	-.7399729E-03	-.16	2
447	.4770000E+00	.4780171E+00	-.1017075E-02	-.21	2
448	.4838000E+00	.4849722E+00	-.1172165E-02	-.24	2
449	.2884000E+00	.2882721E+00	.1279333E-03	.04	2
450	.3109000E+00	.3108992E+00	.8353103E-06	.00	2

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TABLE OF RESIDUALS (WITHIN)

CASE NO.	Y VALUE	Y ESTIMATE	RESIDUAL	PERCENT VARIATION	GROUP NO.
451	.3341000E+00	.3323844E+00	.1715610E-02	.52	2
452	.3559000E+00	.3571335E+00	-.1233466E-02	-.35	2
453	.3820000E+00	.3849164E+00	-.2916411E-02	-.76	2
454	.4123000E+00	.4154757E+00	-.3175706E-02	-.76	2
455	.4452000E+00	.4485966E+00	-.3396612E-02	-.76	2
456	.4526000E+00	.4555121E+00	-.2912132E-02	-.64	2
457	.4601000E+00	.4625217E+00	-.2421740E-02	-.52	2
458	.4685000E+00	.4698242E+00	-.1124236E-02	-.24	2
459	.4770000E+00	.4768185E+00	.1815401E-03	.04	2
460	.4855000E+00	.4841033E+00	.1396707E-02	.29	2
461	.2942000E+00	.2935761E+00	.6239339E-03	.21	2
462	.3178000E+00	.3174903E+00	.3097073E-03	.10	2
463	.3399000E+00	.3400150E+00	-.1149839E-03	-.03	2
464	.3645000E+00	.3659071E+00	-.1407063E-02	-.38	2
465	.3923000E+00	.3949428E+00	-.2642802E-02	-.67	2
466	.4233000E+00	.4268601E+00	-.3560062E-02	-.83	2
467	.4587000E+00	.4614383E+00	-.2738280E-02	-.59	2
468	.4668000E+00	.4688567E+00	-.1856692E-02	-.40	2
469	.4754000E+00	.4759729E+00	-.5729041E-03	-.12	2
470	.3026000E+00	.3040197E+00	-.1419699E-02	-.47	2
471	.3287000E+00	.3301220E+00	-.1421971E-02	-.43	2
472	.3546000E+00	.3545309E+00	.6909822E-04	.02	2
473	.3817000E+00	.3825359E+00	-.8359113E-03	-.22	2
474	.4125000E+00	.4139115E+00	-.1411496E-02	-.34	2
475	.4455000E+00	.4483812E+00	-.2781234E-02	-.62	2
476	.4522000E+00	.4556251E+00	-.2425061E-02	-.53	2
477	.3163000E+00	.3180186E+00	-.1718556E-02	-.54	2
478	.3437000E+00	.3464395E+00	-.2739456E-02	-.79	2
479	.3730000E+00	.3730859E+00	-.8587188E-04	-.02	2
480	.4032000E+00	.4036789E+00	-.4789383E-03	-.12	2
481	.4091000E+00	.4102511E+00	-.1151099E-02	-.28	2
482	.4152000E+00	.4169684E+00	-.1768375E-02	-.42	2
483	.4216000E+00	.4238282E+00	-.2228218E-02	-.53	2
484	.4281000E+00	.4308282E+00	-.2728154E-02	-.63	2
485	.4351000E+00	.4379658E+00	-.2865790E-02	-.65	2
486	.2542000E+00	.2521819E+00	.2018119E-02	.80	2
487	.2690000E+00	.2675580E+00	.1442038E-02	.54	2
488	.2848000E+00	.2834509E+00	.1349072E-02	.48	2
489	.3036000E+00	.3021429E+00	.1457064E-02	.48	2
490	.3241000E+00	.3233409E+00	.7591154E-03	.23	2
491	.3484000E+00	.3467988E+00	.1688061E-03	.11	2
492	.3727000E+00	.3723256E+00	.3744470E-03	.10	2
493	.4046000E+00	.3997695E+00	.4830380E-02	1.21	2
494	.4104000E+00	.4054773E+00	.4922734E-02	1.21	2
495	.4166000E+00	.4112557E+00	.5344266E-02	1.30	2
496	.4232000E+00	.4171042E+00	.6095818E-02	1.46	2
497	.2623000E+00	.2612639E+00	.1033079E-02	.40	2
498	.2795000E+00	.2798748E+00	-.3748552E-03	-.13	2
499	.2983000E+00	.2982487E+00	.5128896E-04	.02	2
500	.3197000E+00	.3196235E+00	.7645118E-04	.02	2

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TABLE OF RESIDUALS (WITHIN)

CASE NO.	Y VALUE	Y ESTIMATE	RESIDUAL	PERCENT VARIATION	GROUP NO.
501	.3423000E+00	.3437356E+00	-.1435631E-02	-.42	2
502	.3687000E+00	.3703345E+00	-.1634480E-02	-.44	2
503	.4006000E+00	.3992188E+00	.1381159E-02	.35	2
504	.4078000E+00	.4052551E+00	.2544852E-02	.63	2
505	.4152000E+00	.4113752E+00	.3824839E-02	.93	2
506	.2667000E+00	.2654651E+00	.1234933E-02	.47	2
507	.2846000E+00	.2853601E+00	-.7601030E-03	-.27	2
508	.3059000E+00	.3047735E+00	.1265476E-03	.17	2
509	.3274000E+00	.3272913E+00	.1087066E-03	.03	2
510	.3515000E+00	.3526562E+00	-.1156169E-02	-.33	2
511	.3802000E+00	.3806130E+00	-.4129832E-03	-.11	2
512	.3865000E+00	.3864964E+00	.3610129E-05	.00	2
513	.3931000E+00	.3924736E+00	.6263806E-03	.16	2
514	.4000000E+00	.3985433E+00	.1456715E-02	.37	2
515	.2754000E+00	.2739236E+00	.1476438E-02	.54	2
516	.2953000E+00	.2960067E+00	-.7066700E-03	-.24	2
517	.3191000E+00	.3173042E+00	.1795768E-02	.57	2
518	.3429000E+00	.3419350E+00	.9649971E-03	.28	2
519	.3704000E+00	.3696397E+00	.7602748E-03	.21	2
520	.3764000E+00	.3755250E+00	.8750250E-03	.23	2
521	.3826000E+00	.3815203E+00	.1079674E-02	.28	2
522	.3891000E+00	.3876239E+00	.1476056E-02	.38	2
523	.2868000E+00	.2856026E+00	.1197425E-02	.42	2
524	.3096000E+00	.3100043E+00	-.4043110E-03	-.13	2
525	.3356000E+00	.3335394E+00	.2060642E-02	.62	2
526	.3629000E+00	.3607582E+00	.2141815E-02	.59	2
527	.3688000E+00	.3666199E+00	.2180121E-02	.59	2
528	.2363000E+00	.2364281E+00	-.1280822E-03	-.05	2
529	.2471000E+00	.2467986E+00	.3014390E-03	.12	2
530	.2622000E+00	.2608253E+00	.1374749E-02	.53	2
531	.2788000E+00	.2782265E+00	.5734989E-03	.21	2
532	.2973000E+00	.2984546E+00	-.1154589E-02	-.39	2
533	.3187000E+00	.3211620E+00	-.2462040E-02	-.77	2
534	.3438000E+00	.3461042E+00	-.2304237E-02	-.67	2
535	.3733000E+00	.3730971E+00	.2029154E-03	.05	2
536	.3787000E+00	.3787284E+00	-.2844058E-04	-.01	2
537	.2439000E+00	.2440250E+00	-.1250283E-03	-.05	2
538	.2572000E+00	.2576274E+00	-.4273600E-03	-.17	2
539	.2743000E+00	.2741349E+00	.1650593E-03	.06	2
540	.2939000E+00	.2942190E+00	-.3190203E-03	-.11	2
541	.3165000E+00	.3173612E+00	-.8612411E-03	-.27	2
542	.3410000E+00	.3432096E+00	-.2209620E-02	-.64	2
543	.3464000E+00	.3486804E+00	-.2280399E-02	-.65	2
544	.3519000E+00	.3542473E+00	-.2347349E-02	-.66	2
545	.3577000E+00	.3599089E+00	-.2208851E-02	-.61	2
546	.3638000E+00	.3656634E+00	-.1863367E-02	-.51	2
547	.2479000E+00	.2479406E+00	-.4061121E-04	-.02	2
548	.2625000E+00	.2628301E+00	-.3300716E-03	-.13	2
549	.2809000E+00	.2803771E+00	.5228814E-03	.19	2
550	.3018000E+00	.3016042E+00	.1957986E-03	.06	2



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TABLE OF RESIDUALS (WITHIN)

CASE NO.	Y VALUE	Y ESTIMATE	RESIDUAL	PERCENT VARIATION	GROUP NO.
551	.3254000E+00	.3259992E+00	-.5992156E-03	-.18	2
552	.3517000E+00	.3532056E+00	-.1505560E-02	-.43	2
553	.3575000E+00	.3589600E+00	-.1460037E-02	-.41	2
554	.2564000E+00	.2566256E+00	-.2256091E-03	-.09	2
555	.2736000E+00	.2737031E+00	-.1031141E-03	-.04	2
556	.2943000E+00	.2931344E+00	.1165599E-02	.40	2
557	.3178000E+00	.3184744E+00	.1325586E-02	.42	2
558	.3227000E+00	.3215634E+00	.1136570E-02	.35	2
559	.3278000E+00	.3267844E+00	.1015562E-02	.31	2
560	.3328000E+00	.3321343E+00	.6656722E-03	.20	2
561	.3379000E+00	.3376102E+00	.2898149E-03	.09	2
562	.3432000E+00	.3432093E+00	-.9274628E-05	-.00	2
563	.2675000E+00	.2699988E+00	-.2496795E-02	-.92	2
564	.2875000E+00	.2893928E+00	-.1892928E-02	-.65	2
565	.3115000E+00	.3110617E+00	.4383003E-03	.14	2
566	.3162000E+00	.3159261E+00	.2739455E-03	.09	2
567	.3211000E+00	.3209555E+00	.1444602E-03	.05	2
568	.3260000E+00	.3281455E+00	-.1455122E-03	-.04	2
569	.3156000E+00	.3117134E+00	.3886617E-02	1.25	1
570	.3465000E+00	.3450775E+00	.1422493E-02	.41	1
571	.3750000E+00	.3676201E+00	.7379875E-02	2.01	1
572	.3965000E+00	.3900449E+00	.6455076E-02	1.65	1
573	.4116000E+00	.4159050E+00	-.4304969E-02	-1.04	1
574	.4374000E+00	.4435673E+00	-.6167266E-02	-1.39	1
575	.4734000E+00	.4729827E+00	.4173426E-03	.09	1
576	.5211000E+00	.5040832E+00	.1701679E-01	3.38	1
577	.5474000E+00	.5367997E+00	.1060033E-01	1.97	1
578	.5496000E+00	.5435310E+00	.6068982E-02	1.12	1
579	.5502000E+00	.5503239E+00	-.1238736E-03	-.02	1
580	.5505000E+00	.5571777E+00	-.6677743E-02	-1.20	1
581	.5543000E+00	.5640921E+00	-.9792145E-02	-1.74	1
582	.5598000E+00	.5710666E+00	-.1126661E-01	-1.97	1
583	.3165000E+00	.3223654E+00	-.5865361E-02	-1.82	1
584	.3504000E+00	.3570798E+00	-.6679838E-02	-1.87	1
585	.3818000E+00	.3823184E+00	-.5183993E-03	-.14	1
586	.4050000E+00	.4090925E+00	-.4092476E-02	-1.00	1
587	.4356000E+00	.4378667E+00	-.2266653E-02	-.52	1
588	.4701000E+00	.4686699E+00	.1430121E-02	.31	1
589	.5100000E+00	.5014429E+00	.8557116E-02	1.71	1
590	.5482000E+00	.5361072E+00	.1209282E-01	2.26	1
591	.5495000E+00	.5432600E+00	.6240030E-02	1.15	1
592	.5500000E+00	.5504846E+00	-.4846134E-03	-.09	1
593	.5507000E+00	.5577805E+00	-.7080510E-02	-1.27	1
594	.5555000E+00	.5651471E+00	-.9647064E-02	-1.71	1
595	.5611000E+00	.5725837E+00	-.1148369E-01	-2.01	1
596	.3200000E+00	.3274334E+00	-.7433375E-02	-2.27	1
597	.3545000E+00	.3634350E+00	-.8934980E-02	-2.46	1
598	.3882000E+00	.3897130E+00	-.1513008E-02	-.39	1
599	.4170000E+00	.4176301E+00	-.6300875E-03	-.15	1
600	.4487000E+00	.4476571E+00	.1042941E-02	.23	1

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TABLE OF RESIDUALS (WITHIN)

CASE NO.	Y VALUE	Y ESTIMATE	RESIDUAL	PERCENT VARIATION	GROUP NO.
601	.4808000E+00	.4798182E+00	.9817511E-03	.20	1
602	.5217000E+00	.5140486E+00	.7651434E-02	1.49	1
603	.5500000E+00	.5502640E+00	-.2640495E-03	-.05	1
604	.5509000E+00	.5577379E+00	-.6837896E-02	-1.23	1
605	.5566000E+00	.5652871E+00	-.8687123E-02	-1.54	1
606	.5629000E+00	.5729111E+00	-.1001109E-01	-1.75	1
607	.3346000E+00	.3379309E+00	-.3330920E-02	-.99	1
608	.3707000E+00	.3761206E+00	-.5420570E-02	-1.44	1
609	.4078000E+00	.4042828E+00	.3517162E-02	.87	1
610	.4378000E+00	.4343128E+00	.3487153E-02	.80	1
611	.4672000E+00	.4666797E+00	.5203350E-03	.11	1
612	.5026000E+00	.5013933E+00	.1206667E-02	.24	1
613	.5488000E+00	.5383748E+00	.1042524E-01	1.94	1
614	.5489000E+00	.5460347E+00	.2865267E-02	.52	1
615	.5507000E+00	.5537808E+00	-.3080784E-02	-.56	1
616	.5547000E+00	.5616121E+00	-.6912145E-02	-1.23	1
617	.5608000E+00	.5695281E+00	-.8728055E-02	-1.53	1
618	.3455000E+00	.3529218E+00	-.7421817E-02	-2.10	1
619	.3857000E+00	.3934301E+00	-.7730096E-02	-1.96	1
620	.4254000E+00	.4238298E+00	.1570151E-02	.37	1
621	.4555000E+00	.4532281E+00	.2271932E-02	.50	1
622	.4925000E+00	.4917260E+00	.7740002E-03	.16	1
623	.5342000E+00	.5296458E+00	.4554213E-02	.86	1
624	.5438000E+00	.5375381E+00	.6261853E-02	1.16	1
625	.5494000E+00	.5455312E+00	.3868825E-02	.71	1
626	.5501000E+00	.5536239E+00	-.352935E-02	-.64	1
627	.2925000E+00	.2957529E+00	-.3252913E-02	-1.10	1
628	.3190000E+00	.3237508E+00	-.4750782E-02	-1.47	1
629	.3473000E+00	.3446647E+00	.2635282E-02	.76	1
630	.3665000E+00	.3645825E+00	.1917467E-02	.53	1
631	.3885000E+00	.3912767E+00	-.2776652E-02	-.71	1
632	.4140000E+00	.4185651E+00	-.4565077E-02	-1.09	1
633	.4415000E+00	.4450196E+00	-.3519600E-02	-.79	1
634	.4721000E+00	.4744096E+00	-.2309572E-02	-.49	1
635	.5066000E+00	.5053786E+00	.1221406E-02	.24	1
636	.5159000E+00	.5117558E+00	.4144229E-02	.81	1
637	.5240000E+00	.5181929E+00	.5807149E-02	1.12	1
638	.5315000E+00	.5246893E+00	.6810670E-02	1.30	1
639	.5385000E+00	.5312447E+00	.7255285E-02	1.37	1
640	.3005000E+00	.3046348E+00	-.4134770E-02	-1.36	1
641	.3310000E+00	.3358645E+00	-.4864492E-02	-1.45	1
642	.3601000E+00	.3592593E+00	.8406809E-03	.23	1
643	.3867000E+00	.3849456E+00	.1754423E-02	.61	1
644	.4112000E+00	.4114682E+00	-.2682159E-03	-.07	1
645	.4354000E+00	.4406154E+00	-.5215408E-02	-1.18	1
646	.4665000E+00	.4717097E+00	-.5209706E-02	-1.10	1
647	.5085000E+00	.5046634E+00	.3936579E-02	.78	1
648	.5182000E+00	.5114698E+00	.6730220E-02	1.32	1
649	.5259000E+00	.5183465E+00	.7553510E-02	1.46	1
650	.5328000E+00	.5252929E+00	.7507079E-02	1.43	1

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TABLE OF RESIDUALS (WITHIN)

CASE NO.	Y VALUE	Y ESTIMATE	RESIDUAL	PERCENT VARIATION	GROUP NO.
651	.5402000E+00	.5323085E+00	.7891542E-02	1.48	1
652	.3082000E+00	.3088411E+00	-.6411234E-03	-.21	1
653	.3393000E+00	.3413580E+00	-.2057974E-02	-.60	1
654	.3639000E+00	.3657923E+00	-.1807732E-02	-.51	1
655	.3959000E+00	.3920215E+00	.3878471E-02	.99	1
656	.4176000E+00	.4203970E+00	-.2796961E-02	-.67	1
657	.4460000E+00	.4509021E+00	-.4902118E-02	-1.09	1
658	.4797000E+00	.4834537E+00	-.3753728E-02	-.78	1
659	.5273000E+00	.5179586E+00	.9341374E-02	1.80	1
660	.5343000E+00	.5250860E+00	.9213954E-02	1.75	1
661	.3172000E+00	.3175187E+00	-.3167340E-03	-.10	1
662	.3511000E+00	.3522216E+00	-.1121630E-02	-.32	1
663	.3832000E+00	.3785402E+00	.4659837E-02	1.23	1
664	.4074000E+00	.4068824E+00	.5176460E-03	.13	1
665	.4343000E+00	.4375976E+00	-.3297633E-02	-.75	1
666	.4667000E+00	.4706553E+00	-.3955267E-02	-.84	1
667	.5107000E+00	.5059580E+00	.4742015E-02	.94	1
668	.5196000E+00	.5132786E+00	.6321404E-02	1.23	1
669	.5286000E+00	.5206839E+00	.7916053E-02	1.52	1
670	.3270000E+00	.3298432E+00	-.2843203E-02	-.86	1
671	.3621000E+00	.3668667E+00	-.4766727E-02	-1.30	1
672	.3975000E+00	.3954227E+00	.2077255E-02	.53	1
673	.4247000E+00	.4263530E+00	-.1652993E-02	-.39	1
674	.4562000E+00	.4599795E+00	-.3779539E-02	-.82	1
675	.4940000E+00	.4962433E+00	-.2243293E-02	-.45	1
676	.5029000E+00	.5038021E+00	-.9021059E-03	-.18	1
677	.2648000E+00	.2702749E+00	-.5474920E-02	-2.03	1
678	.2898000E+00	.2922069E+00	-.2406888E-02	-.82	1
679	.3133000E+00	.3099423E+00	.3357736E-02	1.08	1
680	.3333000E+00	.3294524E+00	.3847610E-02	1.17	1
681	.3508000E+00	.3508413E+00	-.4133619E-04	-.01	1
682	.3722000E+00	.3740291E+00	-.1829118E-02	-.49	1
683	.3964000E+00	.3989157E+00	-.2515674E-02	-.63	1
684	.4242000E+00	.4254071E+00	-.1207088E-02	-.28	1
685	.4510000E+00	.4534199E+00	-.2419898E-02	-.53	1
686	.4574000E+00	.4591984E+00	-.1788408E-02	-.39	1
687	.2750000E+00	.2764960E+00	-.1496028E-02	-.54	1
688	.3018000E+00	.3016598E+00	.2401513E-03	.08	1
689	.3259000E+00	.3218761E+00	.4023885E-02	1.25	1
690	.3449000E+00	.3440691E+00	.8309294E-03	.24	1
691	.3667000E+00	.3683722E+00	-.1672150E-02	-.45	1
692	.3915000E+00	.3947009E+00	-.3200860E-02	-.81	1
693	.4201000E+00	.4229450E+00	-.2845030E-02	-.67	1
694	.4525000E+00	.4530002E+00	-.5001871E-03	-.11	1
695	.4589000E+00	.4592201E+00	-.3201264E-03	-.07	1
696	.2783000E+00	.2795965E+00	-.1296528E-02	-.46	1
697	.3054000E+00	.3060475E+00	-.6474779E-03	-.21	1
698	.3312000E+00	.3273032E+00	.3896789E-02	1.19	1
699	.3517000E+00	.3506392E+00	.1060831E-02	.30	1
700	.3749000E+00	.3761950E+00	-.1295042E-02	-.34	1

FRIDAY, JUL 2, 1976

TABLE OF RESIDUALS (WITHIN)

CASE NO.	Y VALUE	Y ESTIMATE	RESIDUAL	PERCENT VARIATION	GROUP NO.
701	.4014000E+00	.4038817E+00	-.2481717E-02	-.61	1
702	.4317000E+00	.4335832E+00	-.1883200E-02	-.43	1
703	.4380000E+00	.4397554E+00	-.1755386E-02	-.40	1
704	.4446000E+00	.4460029E+00	-.1402923E-02	-.31	1
705	.4517000E+00	.4523250E+00	-.6249753E-03	-.14	1
706	.2865000E+00	.2862870E+00	.2129995E-03	.07	1
707	.3150000E+00	.3149260E+00	.7400523E-04	.02	1
708	.3425000E+00	.3380660E+00	.4434032E-02	1.31	1
709	.3654000E+00	.3635149E+00	.1885144E-02	.52	1
710	.3914000E+00	.3914106E+00	-.1057574E-04	-.00	1
711	.4209000E+00	.4216497E+00	-.7497280E-03	-.18	1
712	.4274000E+00	.4279673E+00	-.5672624E-03	-.13	1
713	.4339000E+00	.4343723E+00	-.4722798E-03	-.11	1
714	.4405000E+00	.4408638E+00	-.3637783E-03	-.08	1
715	.2987000E+00	.2962936E+00	.2406375E-02	.81	1
716	.3299000E+00	.3272512E+00	.2648752E-02	.81	1
717	.3571000E+00	.3526287E+00	.4471295E-02	1.27	1
718	.3831000E+00	.3806657E+00	.2434349E-02	.64	1
719	.4118000E+00	.4114726E+00	.3273626E-03	.08	1
720	.4178000E+00	.4179555E+00	-.1555999E-03	-.04	1
721	.4240000E+00	.4245429E+00	-.5428603E-03	-.13	1
722	.4307000E+00	.4312932E+00	-.5331605E-03	-.12	1
723	.2515000E+00	.2533875E+00	-.1887525E-02	-.74	1
724	.2724000E+00	.2704584E+00	.1941597E-02	.72	1
725	.2857000E+00	.2856838E+00	.1006236E-02	.35	1
726	.3021000E+00	.3029537E+00	-.8536977E-03	-.28	1
727	.3212000E+00	.3221678E+00	-.9677770E-03	-.30	1
728	.3417000E+00	.3431952E+00	-.1495150E-02	-.44	1
729	.3645000E+00	.3659080E+00	-.1408000E-02	-.38	1
730	.3915000E+00	.3901877E+00	.1302330E-02	.33	1
731	.3965000E+00	.3952365E+00	.1263502E-02	.32	1
732	.4015000E+00	.4003340E+00	.1165975E-02	.29	1
733	.4069000E+00	.4054896E+00	.1410393E-02	.35	1
734	.4125000E+00	.4107026E+00	.1797377E-02	.44	1
735	.4184000E+00	.4159725E+00	.2427534E-02	.58	1
736	.2572000E+00	.2581205E+00	-.9205389E-03	-.36	1
737	.2799000E+00	.2784233E+00	.1476731E-02	.53	1
738	.2977000E+00	.2961395E+00	.1560479E-02	.53	1
739	.3163000E+00	.3160823E+00	.2177154E-03	.07	1
740	.3372000E+00	.3382105E+00	-.1010497E-02	-.30	1
741	.3506000E+00	.3523788E+00	-.1778838E-02	-.49	1
742	.3880000E+00	.3884493E+00	-.4492621E-03	-.12	1
743	.3940000E+00	.3938808E+00	.1192113E-03	.03	1
744	.4002000E+00	.3993827E+00	.8172842E-03	.20	1
745	.4066000E+00	.4049542E+00	.1645792E-02	.41	1
746	.4131000E+00	.4105945E+00	.2505544E-02	.61	1
747	.2604000E+00	.2609385E+00	-.5384759E-03	-.21	1
748	.2838000E+00	.2825283E+00	.1271665E-02	.45	1
749	.3036000E+00	.3012841E+00	.2315947E-02	.77	1
750	.3233000E+00	.3223698E+00	.9301802E-03	.29	1

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## TABLE OF RESIDUALS (WITHIN)

CASE NO.	Y VALUE	Y ESTIMATE	RESIDUAL	PERCENT VARIATION	GROUP NO.
751	.3451000E+00	.3457508E+00	-.6508259E-03	-.19	1
752	.3704000E+00	.3712771E+00	-.8771317E-03	-.24	1
753	.3998000E+00	.3988049E+00	.9951317E-03	.25	1
754	.4062000E+00	.4045393E+00	.1660713E-02	.41	1
755	.2669000E+00	.2678555E+00	-.9554510E-03	-.36	1
756	.2922000E+00	.2916334E+00	.5666454E-03	.19	1
757	.3157000E+00	.3122733E+00	.3426688E-02	1.10	1
758	.3369000E+00	.3354720E+00	.1427991E-02	.43	1
759	.3613000E+00	.3611929E+00	.1071378E-03	.03	1
760	.3897000E+00	.3892716E+00	.4283546E-03	.11	1
761	.3958000E+00	.3951561E+00	.6439028E-03	.16	1
762	.2765000E+00	.2795542E+00	-.3054249E-02	-1.09	1
763	.3034000E+00	.3056508E+00	-.2250781E-02	-.74	1
764	.3299000E+00	.3285282E+00	.1371777E-02	.42	1
765	.3538000E+00	.3543150E+00	-.5149773E-03	-.15	1
766	.3595000E+00	.3598198E+00	-.3197625E-03	-.09	1
767	.3647000E+00	.3654370E+00	-.7369711E-03	-.20	1
768	.3701000E+00	.3711650E+00	-.1065000E-02	-.29	1
769	.3757000E+00	.3770022E+00	-.1302240E-02	-.35	1
770	.3814000E+00	.3829471E+00	-.1547097E-02	-.40	1

FRIDAY, JUL 2, 1976

## MAXIMUM RESIDUAL (WITHIN)

CASE NO.	Y VALUE	Y ESTIMATE	RESIDUAL	PERCENT VARIATION	GROUP NO.
576	.5211000E+00	.5040832E+00	.1701679E-01	3.38	1

FRIDAY, JUL 2, 1976

TABLE OF RESIDUALS (TOTAL)

CASE NO.	Y VALUE	Y ESTIMATE	RESIDUAL	PERCENT VARIATION
1	.3265000E+00	.3115843E+00	.1491571E-01	4.79
2	.3436000E+00	.3346296E+00	.8970352E-02	2.64
3	.3605000E+00	.3572679E+00	.3232067E-02	.90
4	.3802000E+00	.3801138E+00	.8619309E-04	.02
5	.4021000E+00	.4064744E+00	-.4374432E-02	-1.08
6	.4315000E+00	.4351379E+00	-.3637855E-02	-.84
7	.4661000E+00	.4659642E+00	.1357892E-03	.03
8	.5010000E+00	.4988272E+00	.2172758E-02	.44
9	.5415000E+00	.5336168E+00	.7883199E-02	1.48
10	.5491000E+00	.5407972E+00	.8302759E-02	1.54
11	.5504000E+00	.5480502E+00	.2349831E-02	.43
12	.5501000E+00	.5553749E+00	-.5274898E-02	-.95
13	.5536000E+00	.5627708E+00	-.8170762E-02	-1.63
14	.3298000E+00	.3203332E+00	.9466757E-02	2.96
15	.3458000E+00	.3494603E+00	-.3660280E-02	-1.05
16	.3704000E+00	.3734996E+00	-.3099570E-02	-.83
17	.3989000E+00	.4001141E+00	-.1214110E-02	-.30
18	.4296000E+00	.4293907E+00	.2092792E-03	.05
19	.4608000E+00	.4611965E+00	-.3965211E-03	-.09
20	.4952000E+00	.4953816E+00	-.1816360E-03	-.04
21	.5440000E+00	.5318093E+00	.1219069E-01	2.29
22	.5491000E+00	.5393531E+00	.9746882E-02	1.81
23	.5499000E+00	.5469809E+00	.2919102E-02	.53
24	.5499000E+00	.5546918E+00	-.4791795E-02	-.86
25	.5549000E+00	.5624850E+00	-.7584975E-02	-1.35
26	.3320000E+00	.3257624E+00	.6237646E-02	1.91
27	.3515000E+00	.3533257E+00	-.1825674E-02	-.52
28	.3814000E+00	.3812588E+00	.1411544E-03	.04
29	.4114000E+00	.4090162E+00	.2383811E-02	.58
30	.4406000E+00	.4395450E+00	.1055042E-02	.24
31	.4730000E+00	.4722981E+00	.7019189E-03	.15
32	.5128000E+00	.5083489E+00	.4451067E-02	.88
33	.5499000E+00	.5463263E+00	.3573696E-02	.65
34	.5510000E+00	.5541908E+00	-.3190846E-02	-.58
35	.5561000E+00	.5621429E+00	-.6042877E-02	-1.07
36	.3453000E+00	.3368458E+00	.8454194E-02	2.51
37	.3728000E+00	.3694550E+00	.3345022E-02	.91
38	.4011000E+00	.3964171E+00	.4682883E-02	1.18
39	.4282000E+00	.4262844E+00	.1915621E-02	.45
40	.4568000E+00	.4591488E+00	-.2348786E-02	-.51
41	.4941000E+00	.4948589E+00	-.7588824E-03	-.15
42	.5441000E+00	.5332452E+00	.1085484E-01	2.04
43	.5490000E+00	.5412296E+00	.7770359E-02	1.44
44	.5501000E+00	.5493138E+00	.8862113E-03	.18
45	.3618000E+00	.3524002E+00	.9399819E-02	2.67
46	.3895000E+00	.3876612E+00	.1838837E-02	.47
47	.4200000E+00	.4190978E+00	.9022477E-03	.22
48	.4440000E+00	.4437276E+00	.2724296E-03	.06
49	.4850000E+00	.4847345E+00	.2655433E-03	.05
50	.5252000E+00	.5236379E+00	.1562059E-02	.30

FRIDAY, JUL 2, 1976

TABLE OF RESIDUALS (TOTAL)

CASE NO.	Y VALUE	Y ESTIMATE	RESIDUAL	PERCENT VARIATION
51	.5353000E+00	.5317780E+00	.3521954E-02	.66
52	.2986000E+00	.2928315E+00	.5768513E-02	1.97
53	.3170000E+00	.3158508E+00	.1149248E-02	.36
54	.3345000E+00	.3355070E+00	-.1007039E-02	-.30
55	.3545000E+00	.3555713E+00	-.1071294E-02	-.30
56	.3818000E+00	.3818115E+00	-.1145991E-04	-.00
57	.4091000E+00	.4083175E+00	.7825483E-03	.19
58	.4375000E+00	.4379268E+00	-.4268027E-03	-.10
59	.4667000E+00	.4673471E+00	-.6471156E-03	-.14
60	.4960000E+00	.4996393E+00	-.3639332E-02	-.73
61	.5029000E+00	.5063073E+00	-.3407324E-02	-.67
62	.5100000E+00	.5130435E+00	-.3043542E-02	-.59
63	.5183000E+00	.5198473E+00	-.1547327E-02	-.30
64	.3036000E+00	.3026538E+00	.9462102E-03	.31
65	.3272000E+00	.3289143E+00	-.1714253E-02	-.52
66	.3527000E+00	.3510549E+00	.1645062E-02	.47
67	.3778000E+00	.3757274E+00	.2072551E-02	.55
68	.4018000E+00	.4029806E+00	-.1160618E-02	-.29
69	.4279000E+00	.4326090E+00	-.4708987E-02	-1.09
70	.4579000E+00	.4645211E+00	-.6621088E-02	-1.43
71	.4978000E+00	.4985621E+00	-.7620561E-03	-.15
72	.5044000E+00	.5056151E+00	-.1215137E-02	-.24
73	.5117000E+00	.5127478E+00	-.1047793E-02	-.20
74	.3128000E+00	.3072220E+00	.5578026E-02	1.82
75	.3360000E+00	.3347727E+00	.1227332E-02	.37
76	.3615000E+00	.3579533E+00	.3546714E-02	.99
77	.3844000E+00	.3837686E+00	.6313987E-03	.16
78	.4101000E+00	.4122539E+00	-.2153928E-02	-.52
79	.4384000E+00	.4432593E+00	-.4859292E-02	-1.10
80	.4719000E+00	.4766275E+00	-.4727458E-02	-.99
81	.4802000E+00	.4835719E+00	-.3371942E-02	-.70
82	.4891000E+00	.4906042E+00	-.1504235E-02	-.31
83	.4979000E+00	.4977233E+00	.1766609E-03	.04
84	.5061000E+00	.5049283E+00	.1171718E-02	.23
85	.5132000E+00	.5122181E+00	.9818802E-03	.19
86	.3260000E+00	.3197157E+00	.6284270E-02	1.97
87	.3472000E+00	.3462263E+00	.9737087E-03	.28
88	.3727000E+00	.3712898E+00	.1410176E-02	.38
89	.3997000E+00	.3992151E+00	.4849418E-03	.12
90	.4267000E+00	.4300360E+00	-.3336023E-02	-.78
91	.4596000E+00	.4635887E+00	-.3988688E-02	-.86
92	.4670000E+00	.4706117E+00	-.3611875E-02	-.77
93	.4741000E+00	.4777357E+00	-.3635732E-02	-.76
94	.4822000E+00	.4849596E+00	-.2759605E-02	-.57
95	.4912000E+00	.4922821E+00	-.1082074E-02	-.22
96	.5012000E+00	.4997020E+00	.1498045E-02	.30
97	.3384000E+00	.3293717E+00	.9028293E-02	2.74
98	.3623000E+00	.3614341E+00	.8658778E-03	.24
99	.3900000E+00	.3887294E+00	.1270618E-02	.33
100	.4171000E+00	.4192340E+00	-.2133990E-02	-.51

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TABLE OF RESIDUALS (TOTAL)

CASE NO.	Y VALUE	Y ESTIMATE	RESIDUAL	PERCENT VARIATION
101	.4491000E+00	.4529553E+00	-.3855332E-02	-.85
102	.4558000E+00	.4600690E+00	-.4269049E-02	-.93
103	.4634000E+00	.4673021E+00	-.3902095E-02	-.84
104	.4712000E+00	.4746529E+00	-.3452872E-02	-.73
105	.4791000E+00	.4821198E+00	-.3019812E-02	-.63
106	.2671000E+00	.2674702E+00	-.3701501E-03	-.14
107	.2861000E+00	.2851084E+00	.9916489E-03	.35
108	.3049000E+00	.3016112E+00	.3288817E-02	1.09
109	.3231000E+00	.3205480E+00	.2552001E-02	.80
110	.3416000E+00	.3417655E+00	-.1654802E-03	-.05
111	.3635000E+00	.3650764E+00	-.1576350E-02	-.43
112	.3889000E+00	.3903218E+00	-.1421796E-02	-.36
113	.4186000E+00	.4173708E+00	.1229176E-02	.29
114	.4238000E+00	.4229871E+00	.8128604E-03	.19
115	.4294000E+00	.4286704E+00	.7295985E-03	.17
116	.4352000E+00	.4344199E+00	.7801479E-03	.18
117	.4411000E+00	.4402348E+00	.8652417E-03	.20
118	.4473000E+00	.4461144E+00	.1185590E-02	.27
119	.2784000E+00	.2746377E+00	.3762325E-02	1.37
120	.3000000E+00	.2955171E+00	.4482926E-02	1.52
121	.3168000E+00	.3145043E+00	.2295696E-02	.73
122	.3363000E+00	.3361264E+00	.1736063E-03	.05
123	.3584000E+00	.3602599E+00	-.1859861E-02	-.52
124	.3838000E+00	.3867131E+00	-.2913108E-02	-.75
125	.4138000E+00	.4153173E+00	-.1517313E-02	-.37
126	.4205000E+00	.4212834E+00	-.7833859E-03	-.19
127	.4271000E+00	.4273288E+00	-.2287519E-03	-.05
128	.4338000E+00	.4334524E+00	.3475674E-03	.08
129	.4410000E+00	.4396535E+00	.1346518E-02	.31
130	.4488000E+00	.4459310E+00	.2869013E-02	.64
131	.2847000E+00	.2809889E+00	.3711094E-02	1.32
132	.3052000E+00	.3002711E+00	.4928904E-02	1.64
133	.3229000E+00	.3202983E+00	.2601741E-02	.81
134	.3432000E+00	.3403532E+00	.286474E-03	.04
135	.3670000E+00	.3684488E+00	-.1448778E-02	-.39
136	.3943000E+00	.3962590E+00	-.1958020E-02	-.49
137	.4259000E+00	.4263193E+00	-.4192901E-03	-.10
138	.4327000E+00	.4325880E+00	.1120250E-03	.03
139	.4396000E+00	.4389397E+00	.6603443E-03	.15
140	.2903000E+00	.2853784E+00	.4921566E-02	1.72
141	.3126000E+00	.3097400E+00	.2860031E-02	.92
142	.3345000E+00	.3316500E+00	.2849953E-02	.86
143	.3575000E+00	.3565249E+00	.9751411E-03	.27
144	.3845000E+00	.3842461E+00	.2538782E-03	.07
145	.4153000E+00	.4146037E+00	.6963249E-03	.17
146	.4216000E+00	.4209744E+00	.6255936E-03	.15
147	.4283000E+00	.4274416E+00	.8583956E-03	.20
148	.3020000E+00	.2959427E+00	.6057287E-02	2.05
149	.3250000E+00	.3226241E+00	.2375936E-02	.74
150	.3496000E+00	.3467659E+00	.2834132E-02	.82

FRIDAY, JUL 2, 1976

TABLE OF RESIDUALS (TOTAL)

CASE NO.	Y VALUE	Y ESTIMATE	RESIDUAL	PERCENT VARIATION
151	.3760000E+00	.3742201E+00	.1779945E-02	.48
152	.4065000E+00	.4048417E+00	.1658304E-02	.41
153	.4126000E+00	.4113248E+00	.1275185E-02	.31
154	.2520000E+00	.2507266E+00	.1273443E-02	.51
155	.2647000E+00	.2634531E+00	.1246863E-02	.47
156	.2782000E+00	.2776609E+00	.5391446E-03	.19
157	.2939000E+00	.2946588E+00	-.7587617E-03	-.26
158	.3116000E+00	.3140928E+00	-.2492788E-02	-.79
159	.3340000E+00	.3357015E+00	-.1701524E-02	-.51
160	.3577000E+00	.3592899E+00	-.1589916E-02	-.44
161	.3858000E+00	.3847065E+00	.1093521E-02	.28
162	.3908000E+00	.3899980E+00	.8019532E-03	.21
163	.3962000E+00	.3953569E+00	.8430530E-03	.21
164	.4019000E+00	.4007824E+00	.1117648E-02	.28
165	.2585000E+00	.2564120E+00	.2088050E-02	.81
166	.2734000E+00	.2723797E+00	.1020272E-02	.37
167	.2897000E+00	.2890718E+00	.6281552E-03	.22
168	.3083000E+00	.3087550E+00	-.4550243E-03	-.15
169	.3298000E+00	.3311050E+00	-.1305036E-02	-.39
170	.3539000E+00	.3558561E+00	-.1956149E-02	-.55
171	.3822000E+00	.3828033E+00	-.6033009E-03	-.16
172	.3884000E+00	.3884414E+00	-.4140207E-04	-.01
173	.3948000E+00	.3941596E+00	.6403610E-03	.16
174	.2619000E+00	.2595946E+00	.2305370E-02	.89
175	.2783000E+00	.2768526E+00	.1447361E-02	.52
176	.2956000E+00	.2945847E+00	.1015311E-02	.34
177	.3160000E+00	.3154107E+00	.5893279E-03	.19
178	.3382000E+00	.3390128E+00	-.8128421E-03	-.24
179	.3639000E+00	.3651210E+00	-.1220951E-02	-.33
180	.3896000E+00	.3706239E+00	.1023875E-02	.28
181	.3754000E+00	.3762170E+00	-.8170173E-03	-.22
182	.3815000E+00	.3818990E+00	-.3989891E-03	-.10
183	.3878000E+00	.3876685E+00	.1315371E-03	.03
184	.2691000E+00	.2670985E+00	.2001532E-02	.75
185	.2887000E+00	.2865484E+00	.2151618E-02	.75
186	.3083000E+00	.3061633E+00	.2136653E-02	.70
187	.3304000E+00	.3290592E+00	.1300751E-02	.40
188	.3550000E+00	.3550371E+00	-.3705634E-04	-.01
189	.3605000E+00	.3605587E+00	-.5869163E-04	-.02
190	.3661000E+00	.3661869E+00	-.8687571E-04	-.02
191	.3719000E+00	.3719197E+00	-.1974037E-04	-.01
192	.3779000E+00	.3777555E+00	.1444961E-03	.04
193	.2821000E+00	.2815412E+00	.5588450E-03	.20
194	.3033000E+00	.3011207E+00	.2179278E-02	.72
195	.3236000E+00	.3229674E+00	.6325867E-03	.20
196	.3477000E+00	.3484827E+00	-.7826901E-03	-.22
197	.3529000E+00	.3539955E+00	-.1095506E-02	-.31
198	.3584000E+00	.3596383E+00	-.1238287E-02	-.34
199	.3641000E+00	.3654084E+00	-.1308420E-02	-.36
200	.3057000E+00	.3054602E+00	.2397693E-03	.08

FRIDAY, JUL 2, 1976

TABLE OF RESIDUALS (TOTAL)

CASE NO.	Y VALUE	Y ESTIMATE	RESIDUAL	PERCENT VARIATION
201	.3284000E+00	.3257072E+00	.2692846E-02	.83
202	.3476000E+00	.3460567E+00	.1543301E-02	.45
203	.3715000E+00	.3725692E+00	-.1069179E-02	-.29
204	.3930000E+00	.3967088E+00	-.3708766E-02	-.93
205	.4240000E+00	.4271334E+00	-.3133381E-02	-.73
206	.4592000E+00	.4586574E+00	.5425640E-03	.12
207	.4919000E+00	.4933128E+00	-.1412839E-02	-.49
208	.5292000E+00	.5302091E+00	-.1009106E-02	-.19
209	.5419000E+00	.5378458E+00	.4054232E-02	.75
210	.5488000E+00	.5455660E+00	.3233966E-02	.59
211	.5498000E+00	.5533690E+00	-.3569021E-02	-.64
212	.3094000E+00	.3180095E+00	-.8609478E-02	-2.71
213	.3344000E+00	.3414976E+00	-.7097599E-02	-2.08
214	.3620000E+00	.3643315E+00	-.2331542E-02	-.64
215	.3920000E+00	.3907923E+00	.1207720E-02	.31
216	.4220000E+00	.4205849E+00	.1415132E-02	.34
217	.4503000E+00	.4534128E+00	-.3112829E-02	-.69
218	.4854000E+00	.4890347E+00	-.3634675E-02	-.74
219	.5325000E+00	.5272547E+00	.5245276E-02	.99
220	.5439000E+00	.5351958E+00	.8704171E-02	1.63
221	.5494000E+00	.5432332E+00	.6166821E-02	1.14
222	.5502000E+00	.5513657E+00	-.1165660E-02	-.21
223	.3174000E+00	.3238065E+00	-.6406452E-02	-1.98
224	.3455000E+00	.3485848E+00	-.3084804E-02	-.88
225	.3743000E+00	.3724587E+00	.1841320E-02	.49
226	.4040000E+00	.4000622E+00	.3937778E-02	.98
227	.4350000E+00	.4342317E+00	.7683300E-03	.18
228	.4650000E+00	.4687020E+00	-.3701983E-02	-.79
229	.5026000E+00	.5023698E+00	.2301644E-03	.05
230	.5495000E+00	.5421396E+00	.7380422E-02	1.36
231	.5498000E+00	.5504014E+00	-.6014202E-03	-.11
232	.3364000E+00	.3354824E+00	.9175635E-03	.27
233	.3647000E+00	.3624527E+00	.2247307E-02	.62
234	.3935000E+00	.3882095E+00	.5290516E-02	1.36
235	.4180000E+00	.4153021E+00	.2697918E-02	.65
236	.4480000E+00	.4475614E+00	.4386848E-03	.10
237	.4892000E+00	.4880356E+00	.1164413E-02	.24
238	.4987000E+00	.4957604E+00	.2939633E-02	.59
239	.5088000E+00	.5036068E+00	.5193212E-02	.63
240	.5156000E+00	.5115731E+00	.4026914E-02	.79
241	.5257000E+00	.5196576E+00	.6042434E-02	1.16
242	.5361000E+00	.5278586E+00	.8241401E-02	1.56
243	.3532000E+00	.3515973E+00	.1602707E-02	.46
244	.3807000E+00	.3808874E+00	-.1873661E-03	-.05
245	.4070000E+00	.4088759E+00	-.1875884E-02	-.46
246	.4382000E+00	.4411687E+00	-.2968719E-02	-.67
247	.4759000E+00	.4774495E+00	-.1549481E-02	-.32
248	.4854000E+00	.4851530E+00	.2470342E-03	.05
249	.4939000E+00	.4929996E+00	.9004170E-03	.18
250	.5022000E+00	.5009870E+00	.1213025E-02	.24

FRIDAY, JUL 2, 1976

TABLE OF RESIDUALS (TOTAL)

CASE NO.	Y VALUE	Y ESTIMATE	RESIDUAL	PERCENT VARIATION
251	.5103000E+00	.5091129E+00	.1187121E-02	.23
252	.5189000E+00	.5173751E+00	.1524874E-02	.29
253	.2848000E+00	.2896095E+00	-.4809502E-02	-1.66
254	.3048000E+00	.3076086E+00	-.2808616E-02	-.91
255	.3275000E+00	.3267166E+00	.783483E-03	.24
256	.3474000E+00	.3475700E+00	-.1700144E-03	-.05
257	.3734000E+00	.3720009E+00	.1399059E-02	.38
258	.3985000E+00	.3990157E+00	-.5156597E-03	-.13
259	.4261000E+00	.4283979E+00	-.2297892E-02	-.54
260	.4579000E+00	.4615215E+00	-.3631547E-02	-.79
261	.4896000E+00	.4936085E+00	-.4008470E-02	-.81
262	.4965000E+00	.5005710E+00	-.4071047E-02	-.81
263	.2948000E+00	.3003916E+00	-.5591619E-02	-1.86
264	.3197000E+00	.3216319E+00	-.1931930E-02	-.60
265	.3445000E+00	.3425068E+00	.1993210E-02	.58
266	.3664000E+00	.3667630E+00	-.3630003E-03	-.10
267	.3913000E+00	.3941099E+00	-.2809912E-02	-.71
268	.4213000E+00	.4242670E+00	-.2967009E-02	-.70
269	.4521000E+00	.4570080E+00	-.4908001E-02	-1.07
270	.4812000E+00	.4821503E+00	-.9503345E-03	-.19
271	.4981000E+00	.4994533E+00	-.1353289E-02	-.27
272	.3015000E+00	.3053277E+00	-.3827666E-02	-1.25
273	.3269000E+00	.3278582E+00	-.9582082E-03	-.29
274	.3505000E+00	.3497730E+00	.7269985E-03	.21
275	.3736000E+00	.3751720E+00	-.1572016E-02	-.42
276	.4019000E+00	.4037711E+00	-.1871086E-02	-.46
277	.4310000E+00	.4352852E+00	-.4285177E-02	-.98
278	.4652000E+00	.4694822E+00	-.4282234E-02	-.91
279	.4732000E+00	.4766264E+00	-.3426415E-02	-.72
280	.4816000E+00	.4838690E+00	-.2268962E-02	-.47
281	.4901000E+00	.4912086E+00	-.1108600E-02	-.23
282	.3116000E+00	.3151819E+00	-.3581917E-02	-1.14
283	.3365000E+00	.3399044E+00	-.3404364E-02	-1.00
284	.3633000E+00	.3637021E+00	-.4020723E-03	-.11
285	.3909000E+00	.3912110E+00	-.3110049E-03	-.08
286	.4195000E+00	.4221457E+00	-.2645713E-02	-.63
287	.4522000E+00	.4562071E+00	-.4007105E-02	-.88
288	.4597000E+00	.4633721E+00	-.3672064E-02	-.79
289	.4676000E+00	.4706504E+00	-.3050382E-02	-.65
290	.4760000E+00	.4780404E+00	-.2040404E-02	-.43
291	.3263000E+00	.3286304E+00	-.2330413E-02	-.71
292	.3533000E+00	.3556727E+00	-.2372677E-02	-.67
293	.3810000E+00	.3817021E+00	-.7021112E-03	-.18
294	.4100000E+00	.4117904E+00	-.1790419E-02	-.43
295	.4418000E+00	.4456255E+00	-.3825504E-02	-.86
296	.4490000E+00	.4528123E+00	-.3812317E-02	-.84
297	.4655000E+00	.4601334E+00	.5363387E-02	.79
298	.2613000E+00	.2643714E+00	-.3071354E-02	-1.16
299	.2780000E+00	.2776786E+00	.3213974E-03	.12
300	.2955000E+00	.2929393E+00	.2560718E-02	.87

FRIDAY, JUL 2, 1976

TABLE OF RESIDUALS (TOTAL)

CASE NO.	Y VALUE	Y ESTIMATE	RESIDUAL	PERCENT VARIATION
301	.3128000E+00	.3112994E+00	.1500630E-02	.48
302	.3331000E+00	.3323458E+00	.7541856E-03	.23
303	.3547000E+00	.3557831E+00	-.1083059E-02	-.30
304	.3806000E+00	.3813930E+00	-.7929944E-03	-.21
305	.4117000E+00	.4090072E+00	.2692799E-02	.66
306	.4171000E+00	.4147582E+00	.2341776E-02	.56
307	.4230000E+00	.4205830E+00	.2417001E-02	.57
308	.4292000E+00	.4264806E+00	.2719388E-02	.64
309	.4356000E+00	.4324502E+00	.3149820E-02	.73
310	.2711000E+00	.2724987E+00	-.1398693E-02	-.51
311	.2892000E+00	.2890471E+00	.1528602E-03	.05
312	.3076000E+00	.3067922E+00	.8077825E-03	.26
313	.3278000E+00	.3278376E+00	-.3757907E-04	-.01
314	.3501000E+00	.3518000E+00	-.1700009E-02	-.48
315	.3763000E+00	.3783795E+00	-.2079631E-02	-.55
316	.4073000E+00	.4073483E+00	-.4883256E-03	-.04
317	.4133000E+00	.4134123E+00	-.8876677E-03	-.12
318	.4212000E+00	.4195534E+00	.1636607E-02	.39
319	.4284000E+00	.4258003E+00	.2599688E-02	.61
320	.2745000E+00	.2763303E+00	-.1830348E-02	-.66
321	.2956000E+00	.2941690E+00	.1430975E-02	.49
322	.3141000E+00	.3129540E+00	.1145964E-02	.37
323	.3351000E+00	.3351422E+00	-.4220128E-04	-.01
324	.3590000E+00	.3603568E+00	-.1356789E-02	-.38
325	.3874000E+00	.3882934E+00	-.8934064E-03	-.23
326	.3936000E+00	.3941858E+00	-.5858080E-03	-.15
327	.4000000E+00	.4001760E+00	-.1759799E-03	-.04
328	.4066000E+00	.4062624E+00	.3376062E-03	.08
329	.4135000E+00	.4124436E+00	.1056411E-02	.26
330	.4205000E+00	.4187182E+00	.1781834E-02	.43
331	.2825000E+00	.2841998E+00	-.1699848E-02	-.60
332	.3044000E+00	.3042304E+00	.1695659E-03	.06
333	.3265000E+00	.3248984E+00	.1601644E-02	.49
334	.3499000E+00	.3491964E+00	.7035600E-03	.20
335	.3773000E+00	.3767467E+00	.5533344E-03	.15
336	.3833000E+00	.3826176E+00	.6824309E-03	.18
337	.3895000E+00	.3886034E+00	.8965751E-03	.23
338	.3959000E+00	.3947022E+00	.1197828E-02	.30
339	.4026000E+00	.4009118E+00	.1688152E-02	.42
340	.4095000E+00	.4072306E+00	.2269416E-02	.56
341	.2929000E+00	.2953246E+00	-.2424608E-02	-.82
342	.3172000E+00	.3176750E+00	-.4750067E-03	-.15
343	.3424000E+00	.3405747E+00	.1825341E-02	.54
344	.3691000E+00	.3674521E+00	.1647882E-02	.45
345	.3750000E+00	.3732687E+00	.1731284E-02	.46
346	.3811000E+00	.3792249E+00	.1875094E-02	.49
347	.3873000E+00	.3853178E+00	.1982215E-02	.51
348	.3937000E+00	.3915446E+00	.2155403E-02	.55
349	.2456000E+00	.2477510E+00	-.2150951E-02	-.87
350	.2555000E+00	.2561047E+00	-.6046723E-03	-.24

FRIDAY, JUL 2, 1976

TABLE OF RESIDUALS (TOTAL)

CASE NO.	Y VALUE	Y ESTIMATE	RESIDUAL	PERCENT VARIATION
351	.2705000E+00	.2692867E+00	.1213251E-02	.45
352	.2863000E+00	.2860336E+00	.2664017E-03	.09
353	.3042000E+00	.3057047E+00	-.1504720E-02	-.49
354	.3253000E+00	.3279168E+00	-.2616832E-02	-.80
355	.3506000E+00	.3524070E+00	-.1807016E-02	-.51
356	.3797000E+00	.3789803E+00	.7196586E-03	.19
357	.3849000E+00	.3845310E+00	.3689723E-03	.10
358	.3905000E+00	.3901578E+00	.3421902E-03	.09
359	.2521000E+00	.2543962E+00	-.2296158E-02	-.90
360	.2651000E+00	.2659911E+00	-.8910774E-03	-.34
361	.2819000E+00	.2816576E+00	.2424475E-03	.09
362	.3009000E+00	.3010897E+00	-.1896748E-03	-.06
363	.3228000E+00	.3226768E+00	.18767820E-03	.27
364	.3472000E+00	.3490313E+00	-.1831272E-02	-.52
365	.3761000E+00	.3768802E+00	-.7802154E-03	-.21
366	.3824000E+00	.3827304E+00	-.3303867E-03	-.09
367	.2557000E+00	.2579467E+00	-.2246701E-02	-.87
368	.2701000E+00	.2708318E+00	-.7518511E-03	-.27
369	.2881000E+00	.2875383E+00	.5617402E-03	.20
370	.3087000E+00	.3081132E+00	.5868141E-03	.19
371	.3323000E+00	.3319525E+00	.3475485E-03	.10
372	.3576000E+00	.3586639E+00	-.1063936E-02	-.30
373	.3634000E+00	.3643250E+00	-.9249890E-03	-.25
374	.3694000E+00	.3700877E+00	-.6877260E-03	-.19
375	.3756000E+00	.3759504E+00	-.3503948E-03	-.09
376	.2634000E+00	.2660431E+00	-.2643072E-02	-.99
377	.2807000E+00	.2811201E+00	-.4201269E-03	-.15
378	.3012000E+00	.2997095E+00	.1490550E-02	.50
379	.3238000E+00	.3223943E+00	.1405705E-02	.44
380	.3490000E+00	.3485692E+00	.4308018E-03	.12
381	.3545000E+00	.3541849E+00	.3151230E-03	.09
382	.3602000E+00	.3599210E+00	.2790322E-03	.08
383	.2737000E+00	.2788561E+00	-.5156077E-02	-1.85
384	.2967000E+00	.2962529E+00	.4470515E-03	.15
385	.3173000E+00	.3170740E+00	.2260017E-03	.07
386	.3419000E+00	.3423382E+00	-.4382179E-03	-.13
387	.3475000E+00	.3478645E+00	-.3645105E-03	-.10
388	.2936000E+00	.2919529E+00	.1647099E-02	.56
389	.3129000E+00	.3129582E+00	-.5816664E-04	-.02
390	.3347000E+00	.3339769E+00	.7230837E-03	.22
391	.3605000E+00	.3610157E+00	-.5157224E-03	-.14
392	.3864000E+00	.3862246E+00	.1753644E-03	.05
393	.4193000E+00	.4168285E+00	.2471495E-02	.59
394	.4488000E+00	.4500828E+00	-.1282818E-02	-.29
395	.4844000E+00	.4857978E+00	-.1397757E-02	-.28
396	.5174000E+00	.5281778E+00	-.6417936E-02	-1.23
397	.5285000E+00	.5316868E+00	-.3186801E-02	-.60
398	.5401000E+00	.5396417E+00	.4583151E-03	.08
399	.3018000E+00	.3054620E+00	-.3661962E-02	-1.20
400	.3281000E+00	.3297084E+00	-.1608426E-02	-.49

FRIDAY, JUL 2, 1976

TABLE OF RESIDUALS (TOTAL)

CASE NO.	Y VALUE	Y ESTIMATE	RESIDUAL	PERCENT VARIATION
401	.3556000E+00	.3532116E+00	.2388427E-02	.68
402	.3846000E+00	.3804280E+00	.4171962E-02	1.10
403	.4131000E+00	.4110606E+00	.2039448E-02	.50
404	.4395000E+00	.4448068E+00	-.5306798E-02	-1.19
405	.4778000E+00	.4814195E+00	-.3619871E-02	-.75
406	.5189000E+00	.5206995E+00	-.1799456E-02	-.35
407	.5315000E+00	.5288603E+00	.2639692E-02	.50
408	.3108000E+00	.3116258E+00	-.8267993E-03	-.27
409	.3282000E+00	.3371635E+00	-.1036506E-02	-.31
410	.3666000E+00	.3617066E+00	.4892425E-02	1.35
411	.3954000E+00	.3900658E+00	.5334156E-02	1.37
412	.4210000E+00	.4203570E+00	.6430040E-03	.15
413	.4528000E+00	.4570538E+00	-.4253757E-02	-.93
414	.4853000E+00	.4951229E+00	-.1771051E-03	.04
415	.5054000E+00	.5030738E+00	.2326169E-02	.46
416	.5147000E+00	.5111336E+00	.3566395E-02	.70
417	.5232000E+00	.5193008E+00	.3899187E-02	.75
418	.5332000E+00	.5275741E+00	.5625896E-02	1.07
419	.3263000E+00	.3238953E+00	.2404684E-02	.74
420	.3538000E+00	.3516239E+00	.2176084E-02	.62
421	.3820000E+00	.3780499E+00	.3950088E-02	1.04
422	.4092000E+00	.4085191E+00	.6809006E-03	.17
423	.4405000E+00	.4427394E+00	-.2239409E-02	-.51
424	.4796000E+00	.4803900E+00	-.7899511E-03	-.16
425	.4892000E+00	.4883073E+00	.8926991E-03	.18
426	.4992000E+00	.4963492E+00	.2850833E-02	.57
427	.5081000E+00	.5045137E+00	.3586253E-02	.71
428	.5176000E+00	.5127993E+00	.4800690E-02	.94
429	.3393000E+00	.3405707E+00	-.1270654E-02	-.37
430	.3693000E+00	.3706191E+00	-.1319070E-02	-.36
431	.3997000E+00	.3992768E+00	.4232072E-03	.11
432	.4302000E+00	.4323254E+00	-.2125355E-02	-.49
433	.4671000E+00	.4694460E+00	-.2346042E-02	-.50
434	.4761000E+00	.4773271E+00	-.1227099E-02	-.26
435	.4856000E+00	.4853544E+00	.2456243E-03	.05
436	.2747000E+00	.2785333E+00	-.1833335E-02	-.66
437	.2918000E+00	.2959094E+00	-.4009555E-02	-1.35
438	.3186000E+00	.3145097E+00	.1891257E-02	.60
439	.3400000E+00	.3369729E+00	.3027092E-02	.90
440	.3632000E+00	.3618415E+00	.1358474E-02	.38
441	.3879000E+00	.3884443E+00	-.5442512E-03	-.14
442	.4187000E+00	.4190267E+00	-.3267156E-03	-.08
443	.4523000E+00	.4509729E+00	.1327067E-02	.29
444	.4580000E+00	.4576115E+00	.3885495E-03	.08
445	.4641000E+00	.4643307E+00	-.2307089E-03	-.05
446	.4704000E+00	.4711298E+00	-.7297701E-03	-.15
447	.4770000E+00	.4780077E+00	-.1007727E-02	-.21
448	.4838000E+00	.4849637E+00	-.1163701E-02	-.24
449	.2884000E+00	.2882753E+00	.1247351E-03	.04
450	.3109000E+00	.3108927E+00	.7317071E-05	.00

FRIDAY, JUL 2, 1976

TABLE OF RESIDUALS (TOTAL)

CASE NO.	Y VALUE	Y ESTIMATE	RESIDUAL	PERCENT VARIATION
451	.3341000E+00	.3323763E+00	.1723730E-02	.52
452	.3558000E+00	.3571257E+00	-.1225707E-02	-.34
453	.3820000E+00	.3849103E+00	-.2910311E-02	-.76
454	.4123000E+00	.4154723E+00	-.3172258E-02	-.76
455	.4452000E+00	.4485966E+00	-.3396638E-02	-.76
456	.4526000E+00	.4555129E+00	-.2912941E-02	-.64
457	.4601000E+00	.4625234E+00	-.2423360E-02	-.52
458	.4685000E+00	.4696267E+00	-.1126693E-02	-.24
459	.4770000E+00	.4768218E+00	.1782202E-03	.04
460	.4855000E+00	.4841075E+00	.1392498E-02	.29
461	.2942000E+00	.2935792E+00	.6208246E-03	.21
462	.3178000E+00	.3174868E+00	.3131758E-03	.10
463	.3399000E+00	.3400103E+00	-.1103446E-03	-.03
464	.3645000E+00	.3659026E+00	-.1402586E-02	-.38
465	.3923000E+00	.3949393E+00	-.2639348E-02	-.67
466	.4233000E+00	.4268583E+00	-.3558290E-02	-.83
467	.4587000E+00	.4614387E+00	-.2738735E-02	-.59
468	.4668000E+00	.4686576E+00	-.1857649E-02	-.40
469	.4754000E+00	.4759744E+00	-.5742833E-03	-.12
470	.3026000E+00	.3040260E+00	-.1425959E-02	-.47
471	.3287000E+00	.3301255E+00	-.1425513E-02	-.43
472	.3546000E+00	.3545319E+00	.6805208E-04	.02
473	.3817000E+00	.3825341E+00	-.8341077E-03	-.22
474	.4125000E+00	.4139065E+00	-.1406508E-02	-.34
475	.4456000E+00	.4483728E+00	-.2772751E-02	-.62
476	.4532000E+00	.4556158E+00	-.2415845E-02	-.53
477	.3163000E+00	.3180349E+00	-.1734936E-02	-.55
478	.3437000E+00	.3464543E+00	-.2754307E-02	-.79
479	.3730000E+00	.3730925E+00	-.9246825E-04	-.02
480	.4032000E+00	.4036740E+00	-.4740028E-03	-.12
481	.4091000E+00	.4102435E+00	-.1143537E-02	-.28
482	.4152000E+00	.4169581E+00	-.1758088E-02	-.42
483	.4216000E+00	.4238151E+00	-.2215113E-02	-.52
484	.4281000E+00	.4308121E+00	-.2712141E-02	-.63
485	.4351000E+00	.4379468E+00	-.2846780E-02	-.65
486	.2542000E+00	.2521575E+00	.2042489E-02	.81
487	.2690000E+00	.2675311E+00	.1468935E-02	.55
488	.2848000E+00	.2834241E+00	.1375856E-02	.49
489	.3036000E+00	.3021170E+00	.1482967E-02	.49
490	.3241000E+00	.3233164E+00	.7836121E-03	.24
491	.3464000E+00	.3467761E+00	-.3761313E-03	-.11
492	.3727000E+00	.3723051E+00	.3949477E-03	.11
493	.4046000E+00	.3997516E+00	.4848397E-02	1.21
494	.4104000E+00	.4054598E+00	.4940220E-02	1.22
495	.4166000E+00	.4112388E+00	.5361210E-02	1.30
496	.4232000E+00	.4170878E+00	.6112210E-02	1.47
497	.2623000E+00	.2612447E+00	.1055336E-02	.40
498	.2755000E+00	.2798594E+00	-.3594156E-03	-.13
499	.2983000E+00	.2982369E+00	.6310635E-04	.02
500	.3197000E+00	.3196151E+00	.8494449E-04	.03



FRIDAY, JUL 2, 1976

TABLE OF RESIDUALS (TOTAL)

CASE NO.	Y VALUE	Y ESTIMATE	RESIDUAL	PERCENT VARIATION
501	.3423000E+00	.3437304E+00	-.1430396E-02	-.42
502	.3687000E+00	.3703325E+00	-.1632517E-02	-.44
503	.4006000E+00	.3992202E+00	.1379803E-02	.35
504	.4078000E+00	.4052572E+00	.2542824E-02	.63
505	.4152000E+00	.4113779E+00	.3822137E-02	.93
506	.2667000E+00	.2654442E+00	.1255819E-02	.47
507	.2846000E+00	.2853492E+00	-.7491638E-03	-.26
508	.3053000E+00	.3047666E+00	.5334247E-03	.18
509	.3274000E+00	.3272875E+00	.1124589E-03	.03
510	.3515000E+00	.3526550E+00	-.1155040E-02	-.33
511	.3802000E+00	.3806142E+00	-.4141556E-03	-.11
512	.3855000E+00	.3864980E+00	-.2007127E-05	.00
513	.3931000E+00	.3924756E+00	.6243556E-03	.16
514	.4000000E+00	.3985457E+00	.1454276E-02	.36
515	.2754000E+00	.2739062E+00	.1493786E-02	.55
516	.2953000E+00	.2960031E+00	-.7031017E-03	-.24
517	.3191000E+00	.3173034E+00	.1796572E-02	.57
518	.3429000E+00	.3419343E+00	.9656878E-03	.28
519	.3704000E+00	.3696374E+00	.7625512E-03	.21
520	.3764000E+00	.3755222E+00	.8777823E-03	.23
521	.3826000E+00	.3815170E+00	.1082961E-02	.28
522	.3891000E+00	.3876201E+00	.1479920E-02	.38
523	.2868000E+00	.2855915E+00	.1208544E-02	.42
524	.3096000E+00	.3100082E+00	-.4081588E-03	-.13
525	.3356000E+00	.3335402E+00	.2059788E-02	.62
526	.3629000E+00	.3607505E+00	.2149528E-02	.60
527	.3688000E+00	.3666100E+00	.2190049E-02	.60
528	.2363000E+00	.2383994E+00	-.9943148E-04	-.04
529	.2471000E+00	.2467776E+00	.3224468E-03	.13
530	.2622000E+00	.2608085E+00	.1391459E-02	.53
531	.2788000E+00	.2782139E+00	.5861389E-03	.21
532	.2973000E+00	.2984460E+00	-.1146026E-02	-.38
533	.3187000E+00	.3211576E+00	-.2457639E-02	-.77
534	.3438000E+00	.3461041E+00	-.2304111E-02	-.67
535	.3733000E+00	.3731014E+00	.1986376E-03	.05
536	.3787000E+00	.3787336E+00	-.3361505E-04	-.01
537	.2429000E+00	.2440045E+00	-.1044523E-03	-.04
538	.2572000E+00	.2576238E+00	-.4237721E-03	-.16
539	.2743000E+00	.2741392E+00	.1608418E-03	.06
540	.2939000E+00	.2942298E+00	-.3297515E-03	-.11
541	.3165000E+00	.3173779E+00	-.8779025E-03	-.28
542	.3410000E+00	.3432319E+00	-.2231892E-02	-.65
543	.3464000E+00	.3487038E+00	-.2303768E-02	-.66
544	.3519000E+00	.3542718E+00	-.2371807E-02	-.67
545	.3577000E+00	.3599344E+00	-.2234393E-02	-.62
546	.3638000E+00	.3656900E+00	-.1889988E-02	-.52
547	.2479000E+00	.2479229E+00	-.2285866E-04	-.01
548	.2625000E+00	.2628314E+00	-.3324092E-03	-.12
549	.2809000E+00	.2803877E+00	.5122712E-03	.18
550	.3018000E+00	.3016211E+00	.1788740E-03	.06

FRIDAY, JUL 2, 1976

TABLE OF RESIDUALS (TOTAL)

CASE NO.	Y VALUE	Y ESTIMATE	RESIDUAL	PERCENT VARIATION
551	.3254000E+00	.3260214E+00	-.6214354E-03	-.19
552	.3517000E+00	.3532324E+00	-.1532420E-02	-.43
553	.3575000E+00	.3589878E+00	-.1487765E-02	-.41
554	.2564000E+00	.2566118E+00	-.2117620E-03	-.08
555	.2736000E+00	.2737132E+00	-.1132174E-03	-.04
556	.2943000E+00	.2931515E+00	.1148548E-02	.39
557	.3178000E+00	.3164948E+00	.1305233E-02	.41
558	.3227000E+00	.3215842E+00	.1115847E-02	.35
559	.3278000E+00	.3268054E+00	.9945502E-03	.30
560	.3328000E+00	.3321556E+00	.6444476E-03	.19
561	.3379000E+00	.3376315E+00	.2684489E-03	.08
562	.3432000E+00	.3432307E+00	-.3071447E-04	-.01
563	.2675000E+00	.2689852E+00	-.2485249E-02	-.92
564	.2875000E+00	.2894055E+00	-.1906520E-02	-.66
565	.3115000E+00	.3110765E+00	.4235188E-03	.14
566	.3162000E+00	.3159402E+00	.2598137E-03	.08
567	.3211000E+00	.3209688E+00	.1312073E-03	.04
568	.3260000E+00	.3261577E+00	-.1576744E-03	-.05
569	.3156000E+00	.3120274E+00	.3572610E-02	1.14
570	.3465000E+00	.3454345E+00	.1065549E-02	.31
571	.3750000E+00	.3679785E+00	.7021460E-02	1.91
572	.3965000E+00	.3903955E+00	.6104549E-02	1.56
573	.4116000E+00	.4162401E+00	-.4640099E-02	-1.11
574	.4374000E+00	.4438814E+00	-.6481361E-02	-1.46
575	.4734000E+00	.4732710E+00	.1290145E-03	.03
576	.5211000E+00	.5043416E+00	.1675836E-01	3.32
577	.5474000E+00	.5370245E+00	.1037550E-01	1.93
578	.5496000E+00	.5437487E+00	.5851286E-02	1.08
579	.5502000E+00	.5505343E+00	-.3343033E-03	-.06
580	.5505000E+00	.5573808E+00	-.6880775E-02	-1.23
581	.5543000E+00	.5642877E+00	-.9987651E-02	-1.77
582	.5598000E+00	.5712545E+00	-.1145446E-01	-2.01
583	.3185000E+00	.3226570E+00	-.6157009E-02	-1.91
584	.3504000E+00	.3574230E+00	-.7022960E-02	-1.96
585	.3818000E+00	.3826676E+00	-.8675990E-03	-.23
586	.4050000E+00	.4094359E+00	-.4435939E-02	-1.08
587	.4356000E+00	.4381966E+00	-.2596574E-02	-.59
588	.4701000E+00	.4689802E+00	.1119787E-02	.24
589	.5100000E+00	.5017286E+00	.8271403E-02	1.65
590	.5482000E+00	.5263629E+00	.1183610E-01	2.21
591	.5495000E+00	.5435104E+00	.5989593E-02	1.10
592	.5500000E+00	.5507286E+00	-.7286174E-03	-.13
593	.5507000E+00	.5580179E+00	-.7317931E-02	-1.31
594	.5555000E+00	.5653778E+00	-.9877755E-02	-1.75
595	.5611000E+00	.5728075E+00	-.1170751E-01	-2.04
596	.3200000E+00	.3277183E+00	-.7718256E-02	-2.36
597	.3545000E+00	.3637744E+00	-.9274439E-02	-2.55
598	.3882000E+00	.3900590E+00	-.1859011E-02	-.48
599	.4170000E+00	.4179702E+00	-.9701551E-03	-.23
600	.4487000E+00	.4479829E+00	.7170521E-03	.16

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TABLE OF RESIDUALS (TOTAL)

CASE NO.	Y VALUE	Y ESTIMATE	RESIDUAL	PERCENT VARIATION
601	.4808000E+00	.4801236E+00	.6764182E-03	.14
602	.5217000E+00	.5143280E+00	.7371869E-02	1.43
603	.5500000E+00	.5505130E+00	-.5130297E-03	-.09
604	.5509000E+00	.5578803E+00	-.7080272E-02	-1.27
605	.5565000E+00	.5655227E+00	-.8922733E-02	-1.58
606	.5629000E+00	.5731398E+00	-.1023978E-01	-1.79
607	.3346000E+00	.3382092E+00	-.3609176E-02	-1.07
608	.3707000E+00	.3764573E+00	-.5757263E-02	-1.53
609	.4078000E+00	.4046248E+00	.3175250E-02	.78
610	.4378000E+00	.4346458E+00	.3154187E-02	.73
611	.4672000E+00	.4669942E+00	.2057567E-03	.04
612	.5026000E+00	.5016822E+00	.9178218E-03	.18
613	.5488000E+00	.5386317E+00	.1016827E-01	1.89
614	.5489000E+00	.5462847E+00	.2615334E-02	.48
615	.5507000E+00	.5540235E+00	-.3323472E-02	-.60
616	.5547000E+00	.5618474E+00	-.7147382E-02	-1.27
617	.5608000E+00	.5697556E+00	-.8955643E-02	-1.57
618	.3455000E+00	.3532031E+00	-.7703070E-02	-2.18
619	.3857000E+00	.3937710E+00	-.8070973E-02	-2.05
620	.4254000E+00	.4241702E+00	.1229813E-02	.29
621	.4555000E+00	.4535530E+00	.1946990E-02	.43
622	.4925000E+00	.4920194E+00	.4805676E-03	.10
623	.5342000E+00	.5299008E+00	.4299245E-02	.81
624	.5438000E+00	.5377845E+00	.6015544E-02	1.12
625	.5494000E+00	.5457685E+00	.3631476E-02	.67
626	.5501000E+00	.5538520E+00	-.3752034E-02	-.68
627	.2925000E+00	.2960535E+00	-.3553472E-02	-1.20
628	.3190000E+00	.3240929E+00	-.5092888E-02	-1.57
629	.3473000E+00	.3450150E+00	.2284999E-02	.66
630	.3665000E+00	.3649332E+00	.1566807E-02	.43
631	.3885000E+00	.3916220E+00	-.3121979E-02	-.80
632	.4140000E+00	.4189095E+00	-.4900891E-02	-1.17
633	.4415000E+00	.4453437E+00	-.3843694E-02	-.86
634	.4721000E+00	.4747187E+00	-.2618651E-02	-.55
635	.5066000E+00	.5056702E+00	.9298070E-03	.18
636	.5159000E+00	.5120436E+00	.3856399E-02	.75
637	.5240000E+00	.5184768E+00	.5523176E-02	1.07
638	.5315000E+00	.5249694E+00	.6530640E-02	1.24
639	.5385000E+00	.5315207E+00	.6979283E-02	1.31
640	.3005000E+00	.3049160E+00	-.4415861E-02	-1.45
641	.3310000E+00	.3361966E+00	-.5196576E-02	-1.55
642	.3601000E+00	.3596031E+00	.4969141E-03	.14
643	.3867000E+00	.3846919E+00	.2008102E-02	.52
644	.4112000E+00	.4118113E+00	-.6113231E-03	-.15
645	.4354000E+00	.4409510E+00	-.5550985E-02	-1.26
646	.4665000E+00	.4720342E+00	-.5534175E-02	-1.17
647	.5086000E+00	.5049738E+00	.3626222E-02	.72
648	.5182000E+00	.5117770E+00	.6423016E-02	1.26
649	.5259000E+00	.5186504E+00	.7249563E-02	1.40
650	.5328000E+00	.5255935E+00	.7206490E-02	1.37

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TABLE OF RESIDUALS (TOTAL)

CASE NO.	Y VALUE	Y ESTIMATE	RESIDUAL	PERCENT VARIATION
651	.5402000E+00	.5326056E+00	.7594410E-02	1.43
652	.3082000E+00	.3091163E+00	-.9162812E-03	-.30
653	.3393000E+00	.3416871E+00	-.2387127E-02	-.70
654	.3699000E+00	.3661336E+00	.3766429E-02	1.03
655	.3959000E+00	.3923652E+00	.3534813E-02	.90
656	.4176000E+00	.4207368E+00	-.3136770E-02	-.75
657	.4460000E+00	.4512334E+00	-.5233407E-02	-1.16
658	.4797000E+00	.4837727E+00	-.4072682E-02	-.84
659	.5273000E+00	.5186200E+00	.8638022E-02	1.74
660	.5343000E+00	.5253859E+00	.8914078E-02	1.70
661	.3172000E+00	.3177855E+00	-.5854676E-03	-.18
662	.3511000E+00	.3525482E+00	-.1448218E-02	-.41
663	.3832000E+00	.3788776E+00	.4322423E-02	1.14
664	.4074000E+00	.4072191E+00	.1808885E-03	.04
665	.4343000E+00	.4379243E+00	-.3626332E-02	-.83
666	.4667000E+00	.4709703E+00	-.4270270E-02	-.91
667	.5107000E+00	.5062546E+00	.4445354E-02	.88
668	.5196000E+00	.5135711E+00	.6028908E-02	1.17
669	.5286000E+00	.5209721E+00	.7627877E-02	1.46
670	.3270000E+00	.3301130E+00	-.3113001E-02	-.94
671	.3621000E+00	.3671956E+00	-.5095568E-02	-1.39
672	.3975000E+00	.3957567E+00	.1743348E-02	.44
673	.4247000E+00	.4266776E+00	-.1977562E-02	-.46
674	.4562000E+00	.4602852E+00	-.4085161E-02	-.89
675	.4940000E+00	.4965225E+00	-.2522486E-02	-.51
676	.5029000E+00	.5040752E+00	-.1175232E-02	-.23
677	.2648000E+00	.2705689E+00	-.5768946E-02	-2.13
678	.2898000E+00	.2925381E+00	-.2738100E-02	-.94
679	.3133000E+00	.3102831E+00	.3016917E-02	.97
680	.3333000E+00	.3297968E+00	.3503372E-02	1.06
681	.3508000E+00	.3511851E+00	-.3851460E-03	-.11
682	.3722000E+00	.3743696E+00	-.2169641E-02	-.58
683	.3964000E+00	.3992506E+00	-.2850598E-02	-.71
684	.4242000E+00	.4257344E+00	-.1534446E-02	-.36
685	.4510000E+00	.4537380E+00	-.2737967E-02	-.60
686	.4574000E+00	.4595144E+00	-.2114429E-02	-.46
687	.2750000E+00	.2767767E+00	-.1776657E-02	-.64
688	.3019000E+00	.3019870E+00	-.8700895E-04	-.03
689	.3259000E+00	.3222164E+00	.3683609E-02	1.14
690	.3449000E+00	.3444152E+00	.4847916E-03	.14
691	.3667000E+00	.3687197E+00	-.2019713E-02	-.55
692	.3915000E+00	.3950466E+00	-.3546585E-02	-.90
693	.4201000E+00	.4232863E+00	-.3186301E-02	-.75
694	.4525000E+00	.4533348E+00	-.8347952E-03	-.18
695	.4589000E+00	.4595532E+00	-.6531631E-03	-.14
696	.2783000E+00	.2798726E+00	-.1572584E-02	-.56
697	.3054000E+00	.3063732E+00	-.9731671E-03	-.32
698	.3312000E+00	.3276425E+00	.3557518E-02	1.09
699	.3517000E+00	.3509841E+00	.7158961E-03	.20
700	.3749000E+00	.3785408E+00	-.1640766E-02	-.44

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TABLE OF RESIDUALS (TOTAL)

CASE NO.	Y VALUE	Y ESTIMATE	RESIDUAL	PERCENT VARIATION
701	.4014000E+00	.4042246E+00	-.2824634E-02	-.70
702	.4317000E+00	.4339204E+00	-.2220414E-02	-.51
703	.4380000E+00	.4400912E+00	-.2091165E-02	-.48
704	.4446000E+00	.4463372E+00	-.1737152E-02	-.39
705	.4517000E+00	.4526576E+00	-.9575713E-03	-.21
706	.2865000E+00	.2865570E+00	-.5702017E-04	-.02
707	.3150000E+00	.3152495E+00	-.2485077E-03	-.08
708	.3425000E+00	.3384017E+00	.4098262E-02	1.21
709	.3654000E+00	.3638531E+00	.1546722E-02	.43
710	.3914000E+00	.3917456E+00	-.3455780E-03	-.09
711	.4209000E+00	.4219767E+00	-.1076746E-02	-.26
712	.4274000E+00	.4282922E+00	-.8922168E-03	-.21
713	.4339000E+00	.4346950E+00	-.7950271E-03	-.18
714	.4405000E+00	.4411842E+00	-.6841798E-03	-.16
715	.2987000E+00	.2965608E+00	.2139183E-02	.72
716	.3299000E+00	.3275731E+00	.2326879E-02	.71
717	.3571000E+00	.3529571E+00	.4142922E-02	1.17
718	.3831000E+00	.3809880E+00	.2112007E-02	.55
719	.4118000E+00	.4117807E+00	.1932915E-04	.00
720	.4178000E+00	.4182600E+00	-.4599608E-03	-.11
721	.4240000E+00	.4248433E+00	-.8433048E-03	-.20
722	.4307000E+00	.4315295E+00	-.8294537E-03	-.19
723	.2515000E+00	.2537022E+00	-.2202164E-02	-.87
724	.2724000E+00	.2708016E+00	.1598398E-02	.59
725	.2867000E+00	.2860350E+00	.6650385E-03	.23
726	.3021000E+00	.3032839E+00	-.1183925E-02	-.39
727	.3212000E+00	.3224809E+00	-.1280855E-02	-.40
728	.3417000E+00	.3434862E+00	-.1786215E-02	-.52
729	.3645000E+00	.3661728E+00	-.1672815E-02	-.46
730	.3915000E+00	.3904326E+00	.1067383E-02	.27
731	.3965000E+00	.3954651E+00	.1034934E-02	.26
732	.4015000E+00	.4005561E+00	.9439157E-03	.24
733	.4069000E+00	.4057050E+00	.1194968E-02	.29
734	.4125000E+00	.4109113E+00	.1588713E-02	.39
735	.4184000E+00	.4161742E+00	.2225752E-02	.53
736	.2572000E+00	.2584277E+00	-.1227743E-02	-.48
737	.2793000E+00	.2787684E+00	.1131621E-02	.41
738	.2977000E+00	.2964861E+00	.1213863E-02	.41
739	.3163000E+00	.3164204E+00	-.1203737E-03	-.04
740	.3372000E+00	.3385333E+00	-.1333290E-02	-.39
741	.3606000E+00	.3626810E+00	-.2081027E-02	-.57
742	.3880000E+00	.3887264E+00	-.7263865E-03	-.19
743	.3940000E+00	.3941524E+00	-.1524174E-03	-.04
744	.4020000E+00	.3996487E+00	.5513031E-02	.14
745	.4066000E+00	.4052144E+00	.1385607E-02	.34
746	.4131000E+00	.4108487E+00	.2251301E-02	.55
747	.2604000E+00	.2612426E+00	-.8425593E-03	-.32
748	.2838000E+00	.2828734E+00	.9265740E-03	.33
749	.3036000E+00	.3016311E+00	.1968882E-02	.65
750	.3233000E+00	.3227082E+00	.5918418E-03	.18

FRIDAY, JUL 2, 1976

TABLE OF RESIDUALS (TOTAL)

CASE NO.	Y VALUE	Y ESTIMATE	RESIDUAL	PERCENT VARIATION
751	.3451000E+00	.3460732E+00	-.9732327E-03	-.28
752	.3704000E+00	.3715780E+00	-.1177965E-02	-.32
753	.3998000E+00	.3990794E+00	.7206111E-03	.18
754	.4062000E+00	.4048080E+00	.1391968E-02	.34
755	.2669000E+00	.2681539E+00	-.1253865E-02	-.47
756	.2922000E+00	.2919766E+00	.2233631E-03	.08
757	.3157000E+00	.3126172E+00	.3082757E-02	.99
758	.3369000E+00	.3358042E+00	.1095798E-02	.33
759	.3613000E+00	.3615049E+00	-.2049145E-03	-.06
760	.3897000E+00	.3895569E+00	.1430524E-03	.04
761	.3958000E+00	.3954354E+00	.3646446E-03	.09
762	.2765000E+00	.2788459E+00	-.3345907E-02	-1.20
763	.3034000E+00	.3059885E+00	-.2588496E-02	-.85
764	.3299000E+00	.3288608E+00	.1039172E-02	.32
765	.3538000E+00	.3546272E+00	-.8271623E-03	-.23
766	.3595000E+00	.3601265E+00	-.6265018E-03	-.17
767	.3647000E+00	.3657379E+00	-.1037867E-02	-.28
768	.3701000E+00	.3714597E+00	-.1359674E-02	-.37
769	.3757000E+00	.3772903E+00	-.1590329E-02	-.42
770	.3814000E+00	.3832283E+00	-.1828252E-02	-.48

# NADC-77036-30

FRIDAY, JUL 2, 1976

## MAXIMUM RESIDUAL (TOTAL)

CASE NO.	Y VALUE	Y ESTIMATE	RESIDUAL	PERCENT VARIATION
576	.5211000E+00	.5043416E+00	.1675836E-01	3.32

FRIDAY, JUL 2, 1976

STANDARD DEVIATION (TOTAL) = .2348197741E-02

STANDARD DEVIATION (WITHIN) = .2326239423E-02

TREATMENT NO.	STANDARD DEVIATION (WITHIN)
1	.2803346997E-02
2	.1812706065E-02

FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

CASE NUMBER	GROUP NUMBER				
1	1	.1298922E+02	.6494611E+01	.5000000E+02	.5455456E+01
		.3779645E+000	.0	.3247306E+010	.0
		.4123937E+010	.0	.4455303E+000	.1715000E+050
		.0	.0	.3265000E+00	.0
2	1	.3535534E+00	.1767767E+02	.5000000E+02	.3535534E+02
		.3779645E+000	.0	.2500000E+04	.8838835E+030
		.2672612E+000	.0	.1212688E+030	.1715000E+050
		.0	.0	.3436000E+00	.0
3	1	.1035926E+01	.5179630E+02	.5000000E+02	.5059174E+02
		.3779645E+000	.0	.2500000E+04	.2589815E+040
		.3824376E+000	.0	.3553226E+030	.1715000E+050
		.0	.0	.3605000E+00	.0
4	1	.1837117E+01	.9185587E+02	.5000000E+02	.6123724E+02
		.3779645E+000	.0	.2500000E+04	.4592793E+040
		.4629100E+000	.0	.6301312E+030	.1715000E+050
		.0	.0	.3802000E+00	.0
5	1	.2828427E+01	.1414214E+03	.5000000E+02	.7071068E+02
		.3779645E+000	.0	.2500000E+04	.7071068E+040
		.5345225E+000	.0	.9701505E+030	.1715000E+050
		.0	.0	.4021000E+00	.0
6	1	.3552847E+01	.1976424E+03	.5000000E+02	.7905694E+02
		.3779645E+000	.0	.2500000E+04	.9882118E+040
		.5976143E+000	.0	.1355827E+040	.1715000E+050
		.0	.0	.4315000E+00	.0
7	1	.5196152E+01	.2598076E+03	.5000000E+02	.8660254E+02
		.3779645E+000	.0	.2500000E+04	.1299038E+050
		.6546537E+000	.0	.1782280E+040	.1715000E+050
		.0	.0	.4661000E+00	.0
8	1	.6547900E+01	.3273950E+03	.5000000E+02	.9354143E+02
		.3779645E+000	.0	.2500000E+04	.1636975E+050
		.7071068E+000	.0	.2245930E+040	.1715000E+050
		.0	.0	.5010000E+00	.0

FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

CASE NUMBER	GROUP NUMBER				
9	1	.8000000E+01	.4000000E+03	.5000000E+02	.1000000E+03
		.3779645E+000	.0	.2000000E+050	.0
		.7559289E+000	.0	.2744000E+040	.1715000E+050
		.0	.0	.5415000E+00	.0
10	1	.8301867E+01	.4150934E+03	.5000000E+02	.1012423E+03
		.3779645E+000	.0	.2075467E+050	.0
		.7653197E+000	.0	.2847540E+040	.1715000E+050
		.0	.0	.5491000E+00	.0
11	1	.8607439E+01	.4303719E+03	.5000000E+02	.1024695E+03
		.3779645E+000	.0	.2151860E+050	.0
		.7745967E+000	.0	.2952351E+040	.1715000E+050
		.0	.0	.5504000E+00	.0
12	1	.8916670E+01	.4458335E+03	.5000000E+02	.1038822E+03
		.3779645E+000	.0	.2229167E+050	.0
		.7837638E+000	.0	.3058418E+040	.1715000E+050
		.0	.0	.5501000E+00	.0
13	1	.9229518E+01	.4614759E+03	.5000000E+02	.1048809E+03
		.3779645E+000	.0	.2307379E+050	.0
		.7928250E+000	.0	.3165725E+040	.1715000E+050
		.0	.0	.5536000E+00	.0
14	1	.3333333E+000	.0	.5000000E+020	.0
		.0	.0	.2500000E+040	.0
		.0	.0	.0	.1822500E+07
		.0	.0	.3298000E+00	.3645000E+050
15	1	.3535534E+00	.1767767E+02	.5000000E+02	.3535534E+02
		.3333333E+000	.0	.2500000E+04	.8838835E+030
		.2357023E+000	.0	.2577404E+030	.3645000E+050
		.0	.0	.3458000E+00	.0
16	1	.1000000E+01	.5000000E+02	.5000000E+02	.5000000E+02
		.3333333E+000	.0	.2500000E+04	.2500000E+040
		.3333333E+000	.0	.7290000E+030	.3645000E+050
		.0	.0	.3704000E+00	.0

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## TRANSGENERATED

## DATA INPUT

```
CASE NUMBER 17 GROUP NUMBER 1
.1827117E+01-.9185587E+02-.5000000E+02-.6123724E+02-.1224745E+01-.6123724E+000. .7290000E+03
.3333333E+000. .2500000E+04-.4592793E+040. 0. .1822500E+07-.1666667E+02
.4082483E+000. 0. .1339259E+040. -.3645000E+050. 0.
0. 0. .3989000E+000

CASE NUMBER 18 GROUP NUMBER 1
.2828427E+01-.1414214E+03-.5000000E+02-.7071068E+02-.1414214E+01-.9428090E+000. .7290000E+03
.3333333E+000. .2500000E+04-.7071068E+040. 0. .1822500E+07-.1666667E+02
.4714045E+000. 0. .2061923E+040. -.3645000E+050. 0.
0. 0. .4286000E+000

CASE NUMBER 19 GROUP NUMBER 1
.3952847E+01-.1876424E+03-.5000000E+02-.7905694E+02-.1581139E+01-.1317616E+010. .7290000E+03
.3333333E+000. .2500000E+04-.9882118E+040. 0. .1822500E+07-.1666667E+02
.5270463E+000. 0. .2881626E+040. -.3645000E+050. 0.
0. 0. .4608000E+000

CASE NUMBER 20 GROUP NUMBER 1
.5196152E+01-.2598076E+03-.5000000E+02-.8660254E+02-.1732051E+01-.1732051E+010. .7290000E+03
.3333333E+000. .2500000E+04-.1299038E+050. 0. .1822500E+07-.1666667E+02
.5773503E+000. 0. .3787995E+040. -.3645000E+050. 0.
0. 0. .4952000E+000

CASE NUMBER 21 GROUP NUMBER 1
.6547900E+01-.3273950E+03-.5000000E+02-.9354143E+02-.1870829E+01-.2182633E+010. .7290000E+03
.3333333E+000. .2500000E+04-.1636975E+050. 0. .1822500E+07-.1666667E+02
.6236096E+000. 0. .4773419E+040. -.3645000E+050. 0.
0. 0. .5440000E+000

CASE NUMBER 22 GROUP NUMBER 1
.6830520E+01-.3415260E+03-.5000000E+02-.9486833E+02-.1897367E+01-.2276840E+010. .7290000E+03
.3333333E+000. .2500000E+04-.1707630E+050. 0. .1822500E+07-.1666667E+02
.6324555E+000. 0. .4979448E+040. -.3645000E+050. 0.
0. 0. .5491000E+000

CASE NUMBER 23 GROUP NUMBER 1
.7117092E+01-.3558546E+03-.5000000E+02-.9617692E+02-.1923538E+01-.2372364E+010. .7290000E+03
.3333333E+000. .2500000E+04-.1779273E+050. 0. .1822500E+07-.1666667E+02
.6411795E+000. 0. .5188360E+040. -.3645000E+050. 0.
0. 0. .5499000E+000

CASE NUMBER 24 GROUP NUMBER 1
.7407564E+01-.3703782E+03-.5000000E+02-.9746794E+02-.1949359E+01-.2469188E+010. .7290000E+03
.3333333E+000. .2500000E+04-.1851891E+050. 0. .1822500E+07-.1666667E+02
.6497863E+000. 0. .5400114E+040. -.3645000E+050. 0.
0. 0. .5499000E+000
```

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## TRANSGENERATED

## DATA INPUT

```
CASE NUMBER 25 GROUP NUMBER 1
.7701883E+01-.3850941E+03-.5000000E+02-.9874209E+02-.1974842E+01-.2567294E+010. .7290000E+03
.3333333E+000. .2500000E+04-.1925471E+050. 0. .1822500E+07-.1666667E+02
.6582806E+000. 0. .5614673E+040. -.3645000E+050. 0.
0. 0. .5549000E+000

CASE NUMBER 26 GROUP NUMBER 1
0. 0. -.5000000E+020. 0. 0. 0. .1000000E+04
.3162278E+000. .2500000E+040. 0. 0. .2500000E+07-.1581139E+02
0. 0. 0. -.5000000E+050. 0.
0. 0. .3320000E+000

CASE NUMBER 27 GROUP NUMBER 1
.2923369E+00-.1461685E+02-.5000000E+02-.3318419E+02-.5636838E+00-.9244505E+010. .1000000E+04
.3162278E+000. .2500000E+04-.7308423E+030. 0. .2500000E+07-.1581139E+02
.2098752E+000. 0. .2923369E+030. -.5000000E+050. 0.
0. 0. .3515000E+000

CASE NUMBER 28 GROUP NUMBER 1
.1000000E+01-.5000000E+02-.5000000E+02-.5000000E+02-.1000000E+01-.3162278E+000. .1000000E+04
.3162278E+000. .2500000E+04-.2500000E+040. 0. .2500000E+07-.1581139E+02
.3162278E+000. 0. .1000000E+040. -.5000000E+050. 0.
0. 0. .3814000E+000

CASE NUMBER 29 GROUP NUMBER 1
.1837117E+01-.9185587E+02-.5000000E+02-.6123724E+02-.1224745E+01-.5809475E+000. .1000000E+04
.3162278E+000. .2500000E+04-.4592793E+040. 0. .2500000E+07-.1581139E+02
.3872983E+000. 0. .1837117E+040. -.5000000E+050. 0.
0. 0. .4114000E+000

CASE NUMBER 30 GROUP NUMBER 1
.2828427E+01-.1414214E+03-.5000000E+02-.7071068E+02-.1414214E+01-.944272E+000. .1000000E+04
.3162278E+000. .2500000E+04-.7071068E+040. 0. .2500000E+07-.1581139E+02
.4472136E+000. 0. .2828427E+040. -.5000000E+050. 0.
0. 0. .4406000E+000

CASE NUMBER 31 GROUP NUMBER 1
.3938738E+01-.1989369E+03-.5000000E+02-.7896277E+02-.1579255E+01-.1245538E+010. .1000000E+04
.3162278E+000. .2500000E+04-.9846845E+040. 0. .2500000E+07-.1581139E+02
.4994044E+000. 0. .3938738E+040. -.5000000E+050. 0.
0. 0. .4730000E+000

CASE NUMBER 32 GROUP NUMBER 1
.5196152E+01-.2598076E+03-.5000000E+02-.8660254E+02-.1732051E+01-.1643168E+010. .1000000E+04
.3162278E+000. .2500000E+04-.1299038E+050. 0. .2500000E+07-.1581139E+02
.5477226E+000. 0. .5196152E+040. -.5000000E+050. 0.
0. 0. .5128000E+000
```

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## TRANSGENERATED

## DATA INPUT

CASE NUMBER	33	GROUP NUMBER	1
.6547900E+01	.3273950E+03	.5000000E+02	.9354143E+02
.3162278E+00	.2500000E+04	.1636975E+05	.0
.5916080E+00	.0	.5547900E+00	.5000000E+05
.0	.0	.5499000E+00	.0
CASE NUMBER	34	GROUP NUMBER	1
.6830520E+01	.3415260E+03	.5000000E+02	.9488833E+02
.3162278E+00	.2500000E+04	.1707630E+05	.0
.6000000E+00	.0	.6830520E+00	.5000000E+05
.0	.0	.5510000E+00	.0
CASE NUMBER	35	GROUP NUMBER	1
.7117092E+01	.3558546E+03	.5000000E+02	.9617692E+02
.3162278E+00	.2500000E+04	.1779273E+05	.0
.6082763E+00	.0	.7117092E+00	.5000000E+05
.0	.0	.5561000E+00	.0
CASE NUMBER	36	GROUP NUMBER	1
.2886751E+00	.2500000E+04	.0	.0
.0	.0	.0	.4320000E+07
.0	.0	.3453000E+00	.0
CASE NUMBER	37	GROUP NUMBER	1
.3535534E+00	.2500000E+04	.0	.0
.2886751E+00	.0	.8838835E+03	.4320000E+07
.2041241E+00	.0	.6109403E+03	.0
.0	.0	.3728000E+00	.0
CASE NUMBER	38	GROUP NUMBER	1
.1000000E+01	.5000000E+02	.5000000E+02	.1000000E+01
.2886751E+00	.2500000E+04	.2500000E+04	.0
.2886751E+00	.0	.1728000E+04	.4320000E+07
.0	.0	.4011000E+00	.0
CASE NUMBER	39	GROUP NUMBER	1
.1837117E+01	.9185587E+02	.5000000E+02	.6123724E+02
.2886751E+00	.2500000E+04	.4592793E+04	.0
.3535534E+00	.0	.3174539E+04	.8640000E+05
.0	.0	.4282000E+00	.0
CASE NUMBER	40	GROUP NUMBER	1
.2828427E+01	.1414214E+03	.5000000E+02	.7071068E+02
.2886751E+00	.2500000E+04	.7071068E+04	.0
.4082483E+00	.0	.4887522E+04	.4320000E+07
.0	.0	.4568000E+00	.0

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## TRANSGENERATED

## DATA INPUT

CASE NUMBER	41	GROUP NUMBER	1
.3952847E+01	.1976424E+03	.5000000E+02	.7905694E+02
.2886751E+00	.2500000E+04	.9882118E+04	.0
.4564355E+00	.0	.6830520E+04	.8640000E+05
.0	.0	.4941000E+00	.0
CASE NUMBER	42	GROUP NUMBER	1
.5196152E+01	.2598076E+03	.5000000E+02	.8660254E+02
.2886751E+00	.2500000E+04	.1299038E+05	.0
.5000000E+00	.0	.8978951E+04	.8640000E+05
.0	.0	.5441000E+00	.0
CASE NUMBER	43	GROUP NUMBER	1
.5458113E+01	.2729057E+03	.5000000E+02	.8803408E+02
.2886751E+00	.2500000E+04	.1364528E+05	.0
.5082650E+00	.0	.9431620E+04	.8640000E+05
.0	.0	.5490000E+00	.0
CASE NUMBER	44	GROUP NUMBER	1
.5724334E+01	.2862167E+03	.5000000E+02	.8944272E+02
.2886751E+00	.2500000E+04	.1431084E+05	.0
.5163978E+00	.0	.9891649E+04	.8640000E+05
.0	.0	.5503000E+00	.0
CASE NUMBER	45	GROUP NUMBER	1
.2626129E+00	.2500000E+04	.0	.0
.0	.0	.0	.7621562E+07
.0	.0	.3618000E+00	.0
CASE NUMBER	46	GROUP NUMBER	1
.3598856E+00	.1799428E+02	.5000000E+02	.3556517E+02
.2626129E+00	.2500000E+04	.8997140E+03	.0
.1867974E+00	.0	.1097156E+04	.1524313E+06
.0	.0	.3895000E+00	.0
CASE NUMBER	47	GROUP NUMBER	1
.1063147E+01	.5315733E+02	.5000000E+02	.5103104E+02
.2626129E+00	.2500000E+04	.2657867E+04	.0
.2680281E+00	.0	.3241135E+04	.1524313E+06
.0	.0	.4200000E+00	.0
CASE NUMBER	48	GROUP NUMBER	1
.1696809E+01	.8484044E+02	.5000000E+02	.5963680E+02
.2626129E+00	.2500000E+04	.4242022E+04	.0
.3132278E+00	.0	.5172934E+04	.1524313E+06
.0	.0	.4440000E+00	.0

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## TRANSGENERATED

## DATA INPUT

CASE NUMBER	49	GROUP NUMBER	1
.2828427E+01	.1414214E+03	.5000000E+02	.7071068E+02
.2626129E+00		.2500000E+04	.7071068E+04
.3713907E+00			.8622814E+04
0.	0.		.4850000E+00
0.	0.		
0.	0.		
CASE NUMBER	50	GROUP NUMBER	1
.3952847E+01	.1976424E+03	.5000000E+02	.7905694E+02
.2626129E+00		.2500000E+04	.9882118E+04
.4152274E+00			.1205075E+05
0.	0.		.5252000E+00
0.	0.		
0.	0.		
CASE NUMBER	51	GROUP NUMBER	1
.4192374E+01	.2096187E+03	.5000000E+02	.8062258E+02
.2626129E+00		.2500000E+04	.1048094E+05
.4234505E+00			.1278098E+05
0.	0.		.5353000E+00
0.	0.		
0.	0.		
CASE NUMBER	52	GROUP NUMBER	1
0.	0.	0.	0.
.3779645E+00	0.	0.	0.
0.	0.	0.	0.
0.	0.	0.	0.
0.	0.	0.	0.
0.	0.	0.	0.
CASE NUMBER	53	GROUP NUMBER	1
.3535334E+00	0.	0.	.7071068E+00
.3779645E+00	0.	0.	.1336306E+00
.2672612E+00	0.	0.	0.
0.	0.	0.	.1212688E+03
0.	0.	0.	.3170000E+00
0.	0.	0.	0.
CASE NUMBER	54	GROUP NUMBER	1
.1000000E+01	0.	0.	.1000000E+01
.3779645E+00	0.	0.	.3779645E+00
.3779645E+00	0.	0.	0.
0.	0.	0.	.3430000E+03
0.	0.	0.	.3345000E+00
0.	0.	0.	0.
CASE NUMBER	55	GROUP NUMBER	1
.1761105E+01	0.	0.	.1207615E+01
.3779645E+00	0.	0.	.6656350E+00
.4564355E+00	0.	0.	0.
0.	0.	0.	.8040588E+03
0.	0.	0.	.3545000E+00
0.	0.	0.	0.
CASE NUMBER	56	GROUP NUMBER	1
.2828427E+01	0.	0.	.1414214E+01
.3779645E+00	0.	0.	.1069045E+01
.5345225E+00	0.	0.	0.
0.	0.	0.	.9701505E+03
0.	0.	0.	.3818000E+00
0.	0.	0.	0.

FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

CASE NUMBER	57	GROUP NUMBER	1
.3952847E+01	0.	0.	.1581139E+01
.3779645E+00	0.	0.	.1494036E+01
.5976143E+00	0.	0.	0.
0.	0.	0.	.1355827E+04
0.	0.	0.	.4091000E+00
CASE NUMBER	58	GROUP NUMBER	1
.5242615E+01	0.	0.	.1737198E+01
.3779645E+00	0.	0.	.1981522E+01
.6565991E+00	0.	0.	0.
0.	0.	0.	.1798217E+04
0.	0.	0.	.4375000E+00
CASE NUMBER	59	GROUP NUMBER	1
.6547900E+01	0.	0.	.1870829E+01
.3779645E+00	0.	0.	.2474874E+01
.7071068E+00	0.	0.	0.
0.	0.	0.	.2245930E+04
0.	0.	0.	.4667000E+00
CASE NUMBER	60	GROUP NUMBER	1
.8000000E+01	0.	0.	.2000000E+01
.3779645E+00	0.	0.	.3023716E+01
.7559289E+00	0.	0.	0.
0.	0.	0.	.2744000E+04
0.	0.	0.	.4980000E+00
CASE NUMBER	61	GROUP NUMBER	1
.8301867E+01	0.	0.	.2024846E+01
.3779645E+00	0.	0.	.3137811E+01
.7653197E+00	0.	0.	0.
0.	0.	0.	.2847540E+04
0.	0.	0.	.5029000E+00
CASE NUMBER	62	GROUP NUMBER	1
.8607439E+01	0.	0.	.2049390E+01
.3779645E+00	0.	0.	.3253306E+01
.7745967E+00	0.	0.	0.
0.	0.	0.	.2952351E+04
0.	0.	0.	.5100000E+00
CASE NUMBER	63	GROUP NUMBER	1
.8916670E+01	0.	0.	.2073644E+01
.3779645E+00	0.	0.	.3370184E+01
.7837638E+00	0.	0.	0.
0.	0.	0.	.3058418E+04
0.	0.	0.	.5183000E+00
CASE NUMBER	64	GROUP NUMBER	1
0.	0.	0.	0.
.3333333E+00	0.	0.	0.
0.	0.	0.	0.
0.	0.	0.	0.
0.	0.	0.	.3036000E+00



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CASE NUMBER 65	0.	0.	GROUP NUMBER 1	0.	.7290000E+03
.3535534E+000.	0.	0.	.7071068E+00 .1178511E+000.	0.	0.
.3333333E+000.	0.	0.	0.	0.	0.
.2357023E+000.	0.	0.	.2577404E+030.	0.	0.
0.	0.	0.	.3272000E+00	0.	0.
CASE NUMBER 66	0.	0.	GROUP NUMBER 1	0.	.7290000E+03
.1000000E+010.	0.	0.	.1000000E+01 .3333333E+000.	0.	0.
.3333333E+000.	0.	0.	0.	0.	0.
.3333333E+000.	0.	0.	.7290000E+030.	0.	0.
0.	0.	0.	.3527000E+00	0.	0.
CASE NUMBER 67	0.	0.	GROUP NUMBER 1	0.	.7290000E+03
.1837117E+010.	0.	0.	.1224745E+01 .6123724E+000.	0.	0.
.3333333E+000.	0.	0.	0.	0.	0.
.4082483E+000.	0.	0.	.1339259E+040.	0.	0.
0.	0.	0.	.3778000E+00	0.	0.
CASE NUMBER 68	0.	0.	GROUP NUMBER 1	0.	.7290000E+03
.2828427E+010.	0.	0.	.1414214E+01 .9428090E+000.	0.	0.
.3333333E+000.	0.	0.	0.	0.	0.
.4714045E+000.	0.	0.	.2061923E+040.	0.	0.
0.	0.	0.	.4018000E+00	0.	0.
CASE NUMBER 69	0.	0.	GROUP NUMBER 1	0.	.7290000E+03
.3952847E+010.	0.	0.	.1581139E+01 .1317616E+010.	0.	0.
.3333333E+000.	0.	0.	0.	0.	0.
.5270463E+000.	0.	0.	.2881626E+040.	0.	0.
0.	0.	0.	.4279000E+00	0.	0.
CASE NUMBER 70	0.	0.	GROUP NUMBER 1	0.	.7290000E+03
.5196152E+010.	0.	0.	.1732051E+01 .1732051E+010.	0.	0.
.3333333E+000.	0.	0.	0.	0.	0.
.5773503E+000.	0.	0.	.3787995E+040.	0.	0.
0.	0.	0.	.4579000E+00	0.	0.
CASE NUMBER 71	0.	0.	GROUP NUMBER 1	0.	.7290000E+03
.6547900E+010.	0.	0.	.1870829E+01 .2182633E+010.	0.	0.
.3333333E+000.	0.	0.	0.	0.	0.
.6236096E+000.	0.	0.	.4773419E+040.	0.	0.
0.	0.	0.	.4978000E+00	0.	0.
CASE NUMBER 72	0.	0.	GROUP NUMBER 1	0.	.7290000E+03
.6830520E+010.	0.	0.	.1897367E+01 .2276840E+010.	0.	0.
.3333333E+000.	0.	0.	0.	0.	0.
.6324555E+000.	0.	0.	.4979449E+040.	0.	0.
0.	0.	0.	.5044000E+00	0.	0.

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CASE NUMBER 73	0.	0.	GROUP NUMBER 1	0.	.7290000E+03
.7117092E+010.	0.	0.	.1923538E+01 .2372364E+010.	0.	0.
.3333333E+000.	0.	0.	0.	0.	0.
.6411795E+000.	0.	0.	.5188360E+040.	0.	0.
0.	0.	0.	.5117000E+00	0.	0.
CASE NUMBER 74	0.	0.	GROUP NUMBER 1	0.	.1000000E+04
.3162278E+000.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.
0.	0.	0.	.3128000E+00	0.	0.
CASE NUMBER 75	0.	0.	GROUP NUMBER 1	0.	.1000000E+04
.3535534E+000.	0.	0.	.7071068E+00 .1118034E+000.	0.	0.
.3162278E+000.	0.	0.	0.	0.	0.
.2236068E+000.	0.	0.	.3535534E+030.	0.	0.
0.	0.	0.	.3360000E+00	0.	0.
CASE NUMBER 76	0.	0.	GROUP NUMBER 1	0.	.1000000E+04
.1000000E+010.	0.	0.	.1000000E+01 .3162278E+000.	0.	0.
.3162278E+000.	0.	0.	0.	0.	0.
.3162278E+000.	0.	0.	.1000000E+040.	0.	0.
0.	0.	0.	.3615000E+00	0.	0.
CASE NUMBER 77	0.	0.	GROUP NUMBER 1	0.	.1000000E+04
.1837117E+010.	0.	0.	.1224745E+01 .5809475E+000.	0.	0.
.3162278E+000.	0.	0.	0.	0.	0.
.3872983E+000.	0.	0.	.1837117E+040.	0.	0.
0.	0.	0.	.3844000E+00	0.	0.
CASE NUMBER 78	0.	0.	GROUP NUMBER 1	0.	.1000000E+04
.2828427E+010.	0.	0.	.1414214E+01 .8944272E+000.	0.	0.
.3162278E+000.	0.	0.	0.	0.	0.
.4472136E+000.	0.	0.	.2828427E+040.	0.	0.
0.	0.	0.	.4101000E+00	0.	0.
CASE NUMBER 79	0.	0.	GROUP NUMBER 1	0.	.1000000E+04
.3952847E+010.	0.	0.	.1581139E+01 .1250000E+010.	0.	0.
.3162278E+000.	0.	0.	0.	0.	0.
.5000000E+000.	0.	0.	.3952847E+040.	0.	0.
0.	0.	0.	.4384000E+00	0.	0.
CASE NUMBER 80	0.	0.	GROUP NUMBER 1	0.	.1000000E+04
.5196152E+010.	0.	0.	.1732051E+01 .1643168E+010.	0.	0.
.3162278E+000.	0.	0.	0.	0.	0.
.5477226E+000.	0.	0.	.5196152E+040.	0.	0.
0.	0.	0.	.4719000E+00	0.	0.

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## DATA INPUT

CASE NUMBER	GROUP NUMBER	1	1	1
81	1760682E+01	1726007E+010	.1000000E+04	
.5458113E+010	0.	0.	0.	
.3162278E+000	0.	0.	0.	
.5567764E+000	.5458113E+040	0.	0.	
0.	.4802000E+00			
82	1788854E+01	1810193E+010	.1000000E+04	
.5724334E+010	0.	0.	0.	
.3162278E+000	0.	0.	0.	
.5656854E+000	.5724334E+040	0.	0.	
0.	.4891000E+00			
83	1816590E+01	1895706E+010	.1000000E+04	
.5994748E+010	0.	0.	0.	
.3162278E+000	0.	0.	0.	
.5744563E+000	.5994748E+040	0.	0.	
0.	.4979000E+00			
84	1843909E+01	1982524E+010	.1000000E+04	
.6269290E+010	0.	0.	0.	
.3162278E+000	0.	0.	0.	
.5830952E+000	.6269290E+040	0.	0.	
0.	.5061000E+00			
85	1870829E+01	2070628E+010	.1000000E+04	
.6547900E+010	0.	0.	0.	
.3162278E+000	0.	0.	0.	
.5916080E+000	.6547900E+040	0.	0.	
0.	.5132000E+00			
86	1091091E+00	3749666E-030	.1728000E+04	
.1298922E-020	0.	0.	0.	
.2886751E+000	0.	0.	0.	
.3149709E-010	.2244538E+010	0.	0.	
0.	.3260000E+00			
87	7071068E+00	1020621E+000	.1728000E+04	
.3535534E+000	0.	0.	0.	
.2886751E+000	0.	0.	0.	
.2041241E+000	.6109403E+030	0.	0.	
0.	.3472000E+00			
88	1000000E+01	2886751E+000	.1728000E+04	
.1000000E+010	0.	0.	0.	
.2886751E+000	0.	0.	0.	
.2886751E+000	.1728000E+040	0.	0.	
0.	.3727000E+00			

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## DATA INPUT

CASE NUMBER	GROUP NUMBER	1	1	1
89	1224745E+01	5303301E+000	.1728000E+04	
.1837117E+010	0.	0.	0.	
.2886751E+000	0.	0.	0.	
.3535534E+000	.3174539E+040	0.	0.	
0.	.3997000E+00			
90	1414214E+01	8164966E+000	.1728000E+04	
.2828427E+010	0.	0.	0.	
.2886751E+000	0.	0.	0.	
.4082483E+000	.4887522E+040	0.	0.	
0.	.4267000E+00			
91	1581139E+01	1141089E+010	.1728000E+04	
.3952847E+010	0.	0.	0.	
.2886751E+000	0.	0.	0.	
.4564355E+000	.8830520E+040	0.	0.	
0.	.4596000E+00			
92	1612452E+01	1210234E+010	.1728000E+04	
.4192374E+010	0.	0.	0.	
.2886751E+000	0.	0.	0.	
.4654747E+000	.7244422E+040	0.	0.	
0.	.4670000E+00			
93	1643168E+01	1280722E+010	.1728000E+04	
.4436553E+010	0.	0.	0.	
.2886751E+000	0.	0.	0.	
.4743416E+000	.7666363E+040	0.	0.	
0.	.4741000E+00			
94	1673320E+01	1352528E+010	.1728000E+04	
.4685296E+010	0.	0.	0.	
.2886751E+000	0.	0.	0.	
.4830459E+000	.8096192E+040	0.	0.	
0.	.4822000E+00			
95	1702939E+01	1425629E+010	.1728000E+04	
.4938522E+010	0.	0.	0.	
.2886751E+000	0.	0.	0.	
.4915960E+000	.8533766E+040	0.	0.	
0.	.4912000E+00			
96	1732051E+01	1500000E+010	.1728000E+04	
.5196152E+010	0.	0.	0.	
.2886751E+000	0.	0.	0.	
.5000000E+000	.8978951E+040	0.	0.	
0.	.5012000E+00			

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## DATA INPUT

CASE NUMBER	GROUP NUMBER	1
129	1	
.6269290E+01 .6269290E+03 .1000000E+03 .1843909E+03 .1843909E+01 .2089763E+010 .7290000E+03		
.3333333E+000 .1000000E+05 .6269290E+050 .0 .7290000E+07 .3333333E+02		
.6146363E+000 .0 .4570313E+040 .7290000E+050 .0		
0 .0 .4410000E+00		
130	1	
.6547900E+01 .6547900E+03 .1000000E+03 .1870829E+03 .1870829E+01 .2182633E+010 .7290000E+03		
.3333333E+000 .1000000E+05 .6547900E+050 .0 .7290000E+07 .3333333E+02		
.6236096E+000 .0 .4773419E+040 .7290000E+050 .0		
0 .0 .4488000E+00		
131	1	
.2628817E+02 .2628817E+00 .1000000E+03 .1380130E+02 .1380130E+00 .8313050E+030 .1000000E+04		
.3162278E+000 .1000000E+05 .2628817E+020 .0 .1000000E+08 .3162278E+02		
.4364356E+010 .0 .2628817E+010 .1000000E+060 .0		
0 .0 .2847000E+00		
132	1	
.3535534E+00 .3535534E+02 .1000000E+03 .7071068E+02 .7071068E+00 .1118034E+000 .1000000E+04		
.3162278E+000 .1000000E+05 .3535534E+040 .0 .1000000E+08 .3162278E+02		
.2236068E+000 .0 .3535534E+030 .1000000E+060 .0		
0 .0 .3052000E+00		
133	1	
.1000000E+01 .1000000E+03 .1000000E+03 .1000000E+03 .1000000E+01 .3162278E+000 .1000000E+04		
.3162278E+000 .1000000E+05 .1000000E+050 .0 .1000000E+08 .3162278E+02		
.3162278E+000 .0 .1000000E+040 .1000000E+060 .0		
0 .0 .3229000E+00		
134	1	
.1837117E+01 .1837117E+03 .1000000E+03 .1224745E+03 .1224745E+01 .5809475E+000 .1000000E+04		
.3162278E+000 .1000000E+05 .1837117E+050 .0 .1000000E+08 .3162278E+02		
.3872983E+000 .0 .1837117E+040 .1000000E+060 .0		
0 .0 .3432000E+00		
135	1	
.2828427E+01 .2828427E+03 .1000000E+03 .1414214E+03 .1414214E+01 .8944272E+000 .1000000E+04		
.3162278E+000 .1000000E+05 .2828427E+050 .0 .1000000E+08 .3162278E+02		
.4472136E+000 .0 .2828427E+040 .1000000E+060 .0		
0 .0 .3670000E+00		
136	1	
.3952847E+01 .3952847E+03 .1000000E+03 .1581139E+03 .1581139E+01 .1250000E+010 .1000000E+04		
.3162278E+000 .1000000E+05 .3952847E+050 .0 .1000000E+08 .3162278E+02		
.5000000E+000 .0 .3952847E+040 .1000000E+060 .0		
0 .0 .3943000E+00		

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## DATA INPUT

CASE NUMBER	GROUP NUMBER	1
137	1	
.5196152E+01 .5196152E+03 .1000000E+03 .1732051E+03 .1732051E+01 .1643188E+010 .1000000E+04		
.3162278E+000 .1000000E+05 .5196152E+050 .0 .1000000E+08 .3162278E+02		
.5477226E+000 .0 .5196152E+040 .1000000E+060 .0		
0 .0 .4259000E+00		
138	1	
.5458113E+01 .5458113E+03 .1000000E+03 .1760682E+03 .1760682E+01 .1726007E+010 .1000000E+04		
.3162278E+000 .1000000E+05 .5458113E+050 .0 .1000000E+08 .3162278E+02		
.5567764E+000 .0 .5458113E+040 .1000000E+060 .0		
0 .0 .4327000E+00		
139	1	
.5724334E+01 .5724334E+03 .1000000E+03 .1788854E+03 .1788854E+01 .1810193E+010 .1000000E+04		
.3162278E+000 .1000000E+05 .5724334E+050 .0 .1000000E+08 .3162278E+02		
.5656854E+000 .0 .5724334E+040 .1000000E+060 .0		
0 .0 .4396000E+00		
140	1	
.2886751E+000 .1000000E+030 .0 .0 .0 .1728000E+04		
.2886751E+000 .1000000E+050 .0 .0 .0 .1728000E+08 .2886751E+02		
0 .0 .0 .0 .1728000E+060 .0		
0 .0 .2903000E+00		
141	1	
.3535534E+00 .3535534E+02 .1000000E+03 .7071068E+02 .7071068E+00 .1020621E+000 .1728000E+04		
.2886751E+000 .1000000E+05 .3535534E+040 .0 .1728000E+08 .2886751E+02		
.2041241E+000 .0 .6109403E+030 .1728000E+060 .0		
0 .0 .3126000E+00		
142	1	
.1000000E+01 .1000000E+03 .1000000E+03 .1000000E+03 .1000000E+01 .2886751E+000 .1728000E+04		
.2886751E+000 .1000000E+05 .1000000E+050 .0 .1728000E+08 .2886751E+02		
.2886751E+000 .0 .1728000E+040 .1728000E+060 .0		
0 .0 .3345000E+00		
143	1	
.1837117E+01 .1837117E+03 .1000000E+03 .1224745E+03 .1224745E+01 .5303301E+000 .1728000E+04		
.2886751E+000 .1000000E+05 .1837117E+050 .0 .1728000E+08 .2886751E+02		
.3535534E+000 .0 .3174539E+040 .1728000E+060 .0		
0 .0 .3575000E+00		
144	1	
.2828427E+01 .2828427E+03 .1000000E+03 .1414214E+03 .1414214E+01 .8164966E+000 .1728000E+04		
.2886751E+000 .1000000E+05 .2828427E+050 .0 .1728000E+08 .2886751E+02		
.4082483E+000 .0 .4887522E+040 .1728000E+060 .0		
0 .0 .3845000E+00		

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## DATA INPUT

CASE NUMBER	GROUP NUMBER					
145	1	.3952847E+01	.1000000E+03	.1581139E+03	.1141089E+010	.1728000E+04
.2886751E+000		.1000000E+05	.3952847E+050	0.		.1728000E+08 .2886751E+02
.4564355E+000		0.	.6830520E+040		.1728000E+060	0.
0.		0.	.4153000E+00			
146	1	.4192374E+01	.1000000E+03	.1612452E+03	.1210234E+010	.1728000E+04
.2886751E+000		.1000000E+05	.4192374E+050	0.		.1728000E+08 .2886751E+02
.4654747E+000		0.	.7244422E+040		.1728000E+060	0.
0.		0.	.4216000E+00			
147	1	.4436553E+01	.1000000E+03	.1643168E+03	.1280722E+010	.1728000E+04
.2886751E+000		.1000000E+05	.4436553E+050	0.		.1728000E+08 .2886751E+02
.4743416E+000		0.	.7668363E+040		.1728000E+060	0.
0.		0.	.4283000E+00			
148	1	0.	.1000000E+030	0.	0.	.3048625E+04
.2626129E+000		.1000000E+050	0.	0.		.3048625E+08 .2626129E+02
0.		0.	0.	0.	.3048625E+060	0.
0.		0.	.3020000E+00			
149	1	.3535534E+00	.1000000E+03	.7071068E+02	.9284767E+010	.3048625E+04
.2626129E+000		.1000000E+05	.3535534E+040	0.		.3048625E+08 .2626129E+02
.1856953E+000		0.	.1077852E+040		.3048625E+060	0.
0.		0.	.3250000E+00			
150	1	.1000000E+01	.1000000E+03	.1000000E+03	.1000000E+01	.2626129E+000
.2626129E+000		.1000000E+05	.1000000E+050	0.		.3048625E+08 .2626129E+02
.2626129E+000		0.	.3048625E+040		.3048625E+060	0.
0.		0.	.3496000E+00			
151	1	.1837117E+01	.1000000E+03	.1224745E+03	.4824506E+000	.3048625E+04
.2626129E+000		.1000000E+05	.1837117E+050	0.		.3048625E+08 .2626129E+02
.3216338E+000		0.	.560682E+040		.3048625E+060	0.
0.		0.	.3760000E+00			
152	1	.2828427E+01	.1000000E+03	.1414214E+03	.7427814E+000	.3048625E+04
.2626129E+000		.1000000E+05	.2828427E+050	0.		.3048625E+08 .2626129E+02
.3713907E+000		0.	.8622814E+040		.3048625E+060	0.
0.		0.	.4065000E+00			

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## DATA INPUT

CASE NUMBER	GROUP NUMBER					
153	1	.3043188E+01	.1000000E+03	.1449138E+03	.7991806E+000	.3048625E+04
.2626129E+000		.1000000E+05	.3043188E+050	0.		.3048625E+08 .2626129E+02
.3805622E+000		0.	.9277542E+040		.3048625E+060	0.
0.		0.	.4126000E+00			
154	1	0.	.2000000E+030	0.	0.	.3430000E+03
.3779645E+000		.4000000E+050	0.	0.		.1372000E+08 .7559289E+02
0.		0.	0.	0.	.6860000E+050	0.
0.		0.	.2520000E+00			
155	1	.3535534E+00	.2000000E+03	.1414214E+03	.1338306E+000	.3430000E+03
.3779645E+000		.4000000E+05	.1414214E+050	0.		.1372000E+08 .7559289E+02
.2672612E+000		0.	.1212588E+030		.6860000E+050	0.
0.		0.	.2647000E+00			
156	1	.1000000E+01	.2000000E+03	.2000000E+03	.1000000E+01	.3779645E+000
.3779645E+000		.4000000E+05	.4000000E+050	0.		.1372000E+08 .7559289E+02
.3779645E+000		0.	.3430000E+030		.6860000E+050	0.
0.		0.	.2782000E+00			
157	1	.1837117E+01	.2000000E+03	.2449490E+03	.6943651E+000	.3430000E+03
.3779645E+000		.4000000E+05	.7348469E+050	0.		.1372000E+08 .7559289E+02
.4629100E+000		0.	.6301312E+030		.6860000E+050	0.
0.		0.	.2939000E+00			
158	1	.2828427E+01	.2000000E+03	.2828427E+03	.1069045E+010	.3430000E+03
.3779645E+000		.4000000E+05	.1131371E+060	0.		.1372000E+08 .7559289E+02
.5345225E+000		0.	.9701505E+030		.6860000E+050	0.
0.		0.	.3116000E+00			
159	1	.3952847E+01	.2000000E+03	.3162278E+03	.1494036E+010	.3430000E+03
.3779645E+000		.4000000E+05	.1581139E+060	0.		.1372000E+08 .7559289E+02
.5976143E+000		0.	.1355827E+040		.6860000E+050	0.
0.		0.	.3340000E+00			
160	1	.5196152E+01	.2000000E+03	.3464102E+03	.1732051E+010	.3430000E+03
.3779645E+000		.4000000E+05	.2078461E+060	0.		.1372000E+08 .7559289E+02
.6546537E+000		0.	.1782280E+040		.6860000E+050	0.
0.		0.	.3577000E+00			

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## DATA INPUT

CASE NUMBER	161				GROUP NUMBER	1			
.6547900E+01	.1309580E+04	.2000000E+03	.3741657E+03	.1870829E+01	.2474874E+010			.3430000E+03	
.3779645E+000		.4000000E+05	.2619160E+060				.1372000E+08	.7559289E+02	
.7071068E+000		0.	.2245930E+040		.6860000E+050			0.	
0.	0.	0.	.3858000E+00						
CASE NUMBER	162				GROUP NUMBER	1			
.6830520E+01	.1366104E+04	.2000000E+03	.3794733E+03	.1897367E+01	.2581694E+010			.3430000E+03	
.3779645E+000		.4000000E+05	.2732208E+060				.1372000E+08	.7559289E+02	
.7171372E+000		0.	.2342868E+040		.6860000E+050			0.	
0.	0.	0.	.3908000E+00						
CASE NUMBER	163				GROUP NUMBER	1			
.7117092E+01	.1423418E+04	.2000000E+03	.3847077E+03	.1923538E+01	.2590008E+010			.3430000E+03	
.3779645E+000		.4000000E+05	.2846837E+060				.1372000E+08	.7559289E+02	
.7270292E+000		0.	.2441163E+040		.6860000E+050			0.	
0.	0.	0.	.3962000E+00						
CASE NUMBER	164				GROUP NUMBER	1			
.7407564E+01	.1481513E+04	.2000000E+03	.3898718E+03	.1949359E+01	.2799795E+010			.3430000E+03	
.3779645E+000		.4000000E+05	.2963025E+060				.1372000E+08	.7559289E+02	
.7367884E+000		0.	.2540794E+040		.6860000E+050			0.	
0.	0.	0.	.4019000E+00						
CASE NUMBER	165				GROUP NUMBER	1			
0.	0.	.2000000E+030	0.	0.	0.			.7290000E+03	
.3333333E+000		.4000000E+050	0.	0.	0.		.2916000E+08	.6666667E+02	
0.	0.	0.	0.	0.	.1458000E+060			0.	
0.	0.	0.	.2585000E+00						
CASE NUMBER	166				GROUP NUMBER	1			
.3535534E+00	.7071068E+02	.2000000E+03	.1414214E+03	.7071068E+00	.1178511E+000			.7290000E+03	
.3333333E+000		.4000000E+05	.1414214E+050				.2916000E+08	.6666667E+02	
.2357023E+000		0.	.2577404E+030		.1458000E+060			0.	
0.	0.	0.	.2734000E+00						
CASE NUMBER	167				GROUP NUMBER	1			
.1000000E+01	.2000000E+03	.2000000E+03	.2000000E+03	.1000000E+01	.3333333E+000			.7290000E+03	
.3333333E+000		.4000000E+05	.4000000E+050		0.		.2916000E+08	.6666667E+02	
.3333333E+000		0.	.7290000E+030		.1458000E+060			0.	
0.	0.	0.	.2897000E+00						
CASE NUMBER	168				GROUP NUMBER	1			
.1837117E+01	.3674235E+03	.2000000E+03	.2449490E+03	.1224745E+01	.6123724E+000			.7290000E+03	
.3333333E+000		.4000000E+05	.7348469E+050		0.		.2916000E+08	.6666667E+02	
.4082483E+000		0.	.1339259E+040		.1458000E+060			0.	
0.	0.	0.	.3083000E+00						

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## DATA INPUT

CASE NUMBER	169				GROUP NUMBER	1	
.2828427E+01	.5656854E+03	.2000000E+03	.2828427E+03	.1414214E+01	.9428030E+00.		.7290000E+03
.3333333E+00.		.4000000E+05	.1131371E+00.			.2916000E+08	.6666667E+02
.4714045E+00.	0.	0.	.2061923E+04.		.1458000E+06.		0.
0.	0.	0.	.3298000E+00				
CASE NUMBER	170				GROUP NUMBER	1	
.3952847E+01	.7905694E+03	.2000000E+03	.3162278E+03	.1581139E+01	.1317616E+01.		.7290000E+03
.3333333E+00.		.4000000E+05	.1581139E+00.			.2916000E+08	.6666667E+02
.5270463E+00.	0.	0.	.2881625E+04.		.1458000E+06.		0.
0.	0.	0.	.3539000E+00				
CASE NUMBER	171				GROUP NUMBER	1	
.5196152E+01	.1039230E+04	.2000000E+03	.3464102E+03	.1732051E+01	.1732051E+01.		.7290000E+03
.3333333E+00.		.4000000E+05	.2078461E+00.			.2916000E+08	.6666667E+02
.5773503E+00.	0.	0.	.3787995E+04.		.1458000E+06.		0.
0.	0.	0.	.3822000E+00				
CASE NUMBER	172				GROUP NUMBER	1	
.5458113E+01	.1091623E+04	.2000000E+03	.3531363E+03	.1760682E+01	.1819371E+01.		.7290000E+03
.3333333E+00.		.4000000E+05	.2183245E+00.			.2916000E+08	.6666667E+02
.5868939E+00.	0.	0.	.3978965E+04.		.1458000E+06.		0.
0.	0.	0.	.3884000E+00				
CASE NUMBER	173				GROUP NUMBER	1	
.5724334E+01	.1144867E+04	.2000000E+03	.3577709E+03	.1788854E+01	.1908111E+01.		.7290000E+03
.3333333E+00.		.4000000E+05	.2289734E+00.			.2916000E+08	.6666667E+02
.5962848E+00.	0.	0.	.4173040E+04.		.1458000E+06.		0.
0.	0.	0.	.3948000E+00				
CASE NUMBER	174				GROUP NUMBER	1	
0.	0.	.2000000E+03.	0.	0.	0.		.1000000E+04
.3162278E+00.		.4000000E+05.	0.	0.		.4000000E+08	.6324555E+02
0.	0.	0.	0.	0.	.2000000E+06.		0.
0.	0.	0.	.2619000E+00				
CASE NUMBER	175				GROUP NUMBER	1	
.3535534E+00	.7071068E+02	.2000000E+03	.1414214E+03	.7071068E+00	.1118034E+00.		.1000000E+04
.3162278E+00.		.4000000E+05	.1414214E+00.			.4000000E+08	.6324555E+02
.2236068E+00.	0.	0.	.3535534E+03.		.2000000E+06.		0.
0.	0.	0.	.2783000E+00				
CASE NUMBER	176				GROUP NUMBER	1	
.1000000E+01	.2000000E+03	.2000000E+03	.2000000E+03	.1000000E+01	.3162278E+00.		.1000000E+04
.3162278E+00.		.4000000E+05	.4000000E+05.	0.		.4000000E+08	.6324555E+02
.3162278E+00.	0.	0.	.1000000E+04.		.2000000E+06.		0.
0.	0.	0.	.2956000E+00				

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## DATA INPUT

CASE NUMBER 177 GROUP NUMBER 1  
.1837117E+01 .3674235E+03 .2000000E+03 .2449490E+03 .1224745E+01 .5809475E+000. .1000000E+04  
.3162278E+000. .4000000E+05 .7348469E+050. 0. .4000000E+08 .6324555E+02  
.3872983E+000. 0. .1837117E+040. .2000000E+060. 0.  
0. 0. .3160000E+00  
CASE NUMBER 178 GROUP NUMBER 1  
.2828427E+01 .5656854E+03 .2000000E+03 .2828427E+03 .1414214E+01 .8944272E+000. .1000000E+04  
.3162278E+000. .4000000E+05 .1131371E+060. 0. .4000000E+08 .6324555E+02  
.4472136E+000. 0. .2828427E+040. .2000000E+060. 0.  
0. 0. .3382000E+00  
CASE NUMBER 179 GROUP NUMBER 1  
.3952847E+01 .7905694E+03 .2000000E+03 .3162278E+03 .1581139E+01 .1250000E+010. .1000000E+04  
.3162278E+000. .4000000E+05 .1581139E+060. 0. .4000000E+08 .6324555E+02  
.5000000E+000. 0. .3952847E+040. .2000000E+060. 0.  
0. 0. .3639000E+00  
CASE NUMBER 180 GROUP NUMBER 1  
.4192374E+01 .8384748E+03 .2000000E+03 .3224903E+03 .1612452E+01 .1325745E+010. .1000000E+04  
.3162278E+000. .4000000E+05 .1676950E+060. 0. .4000000E+08 .6324555E+02  
.5099020E+000. 0. .4192374E+040. .2000000E+060. 0.  
0. 0. .3696000E+00  
CASE NUMBER 181 GROUP NUMBER 1  
.4436553E+01 .8873105E+03 .2000000E+03 .3286335E+03 .1643168E+01 .1402961E+010. .1000000E+04  
.3162278E+000. .4000000E+05 .1774621E+060. 0. .4000000E+08 .6324555E+02  
.5196152E+000. 0. .4436553E+040. .2000000E+060. 0.  
0. 0. .3754000E+00  
CASE NUMBER 182 GROUP NUMBER 1  
.4685296E+01 .9370592E+03 .2000000E+03 .3346640E+03 .1673320E+01 .1481621E+010. .1000000E+04  
.3162278E+000. .4000000E+05 .1874118E+060. 0. .4000000E+08 .6324555E+02  
.5291503E+000. 0. .4685296E+040. .2000000E+060. 0.  
0. 0. .3815000E+00  
CASE NUMBER 183 GROUP NUMBER 1  
.4938522E+01 .9877044E+03 .2000000E+03 .3405877E+03 .1702939E+01 .1561698E+010. .1000000E+04  
.3162278E+000. .4000000E+05 .1975409E+060. 0. .4000000E+08 .6324555E+02  
.5385165E+000. 0. .4938522E+040. .2000000E+060. 0.  
0. 0. .3878000E+00  
CASE NUMBER 184 GROUP NUMBER 1  
0. 0. .2000000E+030. 0. 0. 0. .1728000E+04  
.2886751E+000. .4000000E+050. 0. 0. .6912000E+08 .5773503E+02  
0. 0. 0. 0. .3456000E+060. 0.  
0. 0. 0. .2691000E+00

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## DATA INPUT

CASE NUMBER 185 GROUP NUMBER 1  
.3535534E+00 .7071068E+02 .2000000E+03 .1414214E+03 .7071068E+00 .1020621E+000. .1728000E+04  
.2886751E+000. .4000000E+05 .1414214E+050. 0. .6912000E+08 .5773503E+02  
.2041241E+000. 0. .5109403E+030. .3456000E+060. 0.  
0. 0. .2887000E+00  
CASE NUMBER 186 GROUP NUMBER 1  
.1000000E+01 .2000000E+03 .2000000E+03 .2000000E+03 .1000000E+01 .2886751E+000. .1728000E+04  
.2886751E+000. .4000000E+05 .4000000E+050. 0. .6912000E+08 .5773503E+02  
.2886751E+000. 0. .1728000E+040. .3456000E+060. 0.  
0. 0. .3083000E+00  
CASE NUMBER 187 GROUP NUMBER 1  
.1837117E+01 .3674235E+03 .2000000E+03 .2449490E+03 .1224745E+01 .5303301E+000. .1728000E+04  
.2886751E+000. .4000000E+05 .7348469E+050. 0. .6912000E+08 .5773503E+02  
.3535534E+000. 0. .3174539E+040. .3456000E+060. 0.  
0. 0. .3304000E+00  
CASE NUMBER 188 GROUP NUMBER 1  
.2828427E+01 .5656854E+03 .2000000E+03 .2828427E+03 .1414214E+01 .8164966E+000. .1728000E+04  
.2886751E+000. .4000000E+05 .1131371E+060. 0. .6912000E+08 .5773503E+02  
.4082483E+000. 0. .4887522E+040. .3456000E+060. 0.  
0. 0. .3550000E+00  
CASE NUMBER 189 GROUP NUMBER 1  
.3043189E+01 .6086378E+03 .2000000E+03 .2898275E+03 .1449138E+01 .8784930E+000. .1728000E+04  
.2886751E+000. .4000000E+05 .1217276E+060. 0. .6912000E+08 .5773503E+02  
.4183300E+000. 0. .5258631E+040. .3456000E+060. 0.  
0. 0. .3605000E+00  
CASE NUMBER 190 GROUP NUMBER 1  
.3263127E+01 .6526255E+03 .2000000E+03 .2966479E+03 .1483240E+01 .9419837E+000. .1728000E+04  
.2886751E+000. .4000000E+05 .1305251E+060. 0. .6912000E+08 .5773503E+02  
.4281744E+000. 0. .5638684E+040. .3456000E+060. 0.  
0. 0. .3681000E+00  
CASE NUMBER 191 GROUP NUMBER 1  
.3488123E+01 .6976245E+03 .2000000E+03 .3033150E+03 .1516575E+01 .1006934E+010. .1728000E+04  
.2886751E+000. .4000000E+05 .1395249E+060. 0. .6912000E+08 .5773503E+02  
.4377975E+000. 0. .6027476E+040. .3456000E+060. 0.  
0. 0. .3719000E+00  
CASE NUMBER 192 GROUP NUMBER 1  
.3718064E+01 .7436128E+03 .2000000E+03 .3098387E+03 .1549193E+01 .1073313E+010. .1728000E+04  
.2886751E+000. .4000000E+05 .1487226E+060. 0. .6912000E+08 .5773503E+02  
.4472136E+000. 0. .6424815E+040. .3456000E+060. 0.  
0. 0. .3779000E+00



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## DATA INPUT

CASE NUMBER	193	194	195	196	197	198	199	200
1707467E+02	3414934E+00	2000000E+03	2390456E+02	1195228E+00	4484028E+030	3048625E+04		
2626129E+000	4000000E+05	6829888E+020	0	1219450E+09	5252257E+02			
3138823E+010	0	5205426E+010	6097250E+060	0				
0	0	2821000E+00						
3535534E+00	7071068E+02	2000000E+03	1414214E+03	7071068E+00	9284767E+010	3048625E+04		
2626129E+000	4000000E+05	1414214E+050	0	1219450E+09	5252257E+02			
1856953E+000	0	1077852E+040	6097250E+060	0				
0	0	3033000E+00						
1000000E+01	2000000E+03	2000000E+03	2000000E+03	1000000E+01	2626129E+000	3048625E+04		
2626129E+000	4000000E+05	4000000E+050	0	1219450E+09	5252257E+02			
2626129E+000	0	3048625E+040	6097250E+060	0				
0	0	3236000E+00						
1837117E+01	3674235E+03	2000000E+03	2449490E+03	1224745E+01	4824506E+000	3048625E+04		
2626129E+000	4000000E+05	7348469E+050	0	1219450E+09	5252257E+02			
3216338E+000	0	560682E+040	6097250E+060	0				
0	0	3477000E+00						
2023858E+01	4047715E+03	2000000E+03	2529822E+03	1264911E+01	5314911E+000	3048625E+04		
2626129E+000	4000000E+05	8095431E+050	0	1219450E+09	5252257E+02			
3321819E+000	0	6169983E+040	6097250E+060	0				
0	0	3529000E+00						
2216529E+01	4433058E+03	2000000E+03	2607681E+03	1303840E+01	5820890E+000	3048625E+04		
2626129E+000	4000000E+05	8866115E+050	0	1219450E+09	5252257E+02			
2672612E+00	4123847E+04	1800000E+02	1212688E+03	3181981E+03	1715000E+05	1590990E+05	2061923E+04	
0	0	0	3584000E+00					
2414953E+01	4829907E+03	2000000E+03	2683282E+03	1341641E+01	6341978E+000	3048625E+04		
2626129E+000	4000000E+05	9659814E+050	0	1219450E+09	5252257E+02			
3523321E+000	0	7362287E+040	6097250E+060	0				
0	0	3641000E+00						
3779645E+000	0	5000000E+020	0	0	0	3430000E+03		
0	0	2500000E+040	5832000E+04	6803361E+01	8575000E+06	1889822E+02		
0	0	1800000E+020	0	1715000E+050	0			
0	0	2916000E+06	3057000E+00					

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## TRANSGENERATED

## DATA INPUT

CASE NUMBER	201	202	203	204	205	206	207	208
3535534E+00	1767767E+02	5000000E+02	3535534E+02	7071068E+00	1336306E+00	1272792E+02	3430000E+03	
3779645E+00	6363961E+01	2500000E+04	8838835E+03	5832000E+04	6803361E+01	8575000E+06	1889822E+02	
2672612E+00	4123847E+04	1800000E+02	1212688E+03	3181981E+03	1715000E+05	1590990E+05	2061923E+04	
6363961E+03	3181981E+05	2916000E+06	3284000E+00					
1000000E+01	5000000E+02	5000000E+02	5000000E+02	1000000E+01	3779645E+00	1800000E+02	3430000E+03	
3779645E+00	1800000E+02	2500000E+04	2500000E+04	5832000E+04	6803361E+01	8575000E+06	1889822E+02	
3779645E+00	5832000E+04	1800000E+02	3430000E+03	9000000E+03	1715000E+05	4500000E+05	5832000E+04	
9000000E+03	4500000E+05	2916000E+06	3476000E+00					
1936408E+01	9882039E+02	5000000E+02	6232117E+02	1248423E+01	7318934E+00	2243562E+02	3436000E+03	
3779645E+00	3485534E+02	2500000E+04	4841020E+04	5832000E+04	6803361E+01	8575000E+06	1889822E+02	
4711038E+00	7269142E+04	1800000E+02	6641879E+03	1742767E+04	1715000E+05	8713835E+05	1129313E+05	
1121781E+04	5608905E+05	2916000E+06	3715000E+00					
2828427E+01	1414214E+03	5000000E+02	7071068E+02	1414214E+01	1069045E+01	2545584E+02	3430000E+03	
3779645E+00	5091168E+02	2500000E+04	7071068E+04	5832000E+04	6803361E+01	8575000E+06	1889822E+02	
5345225E+00	8247693E+04	1800000E+02	9701505E+03	2545584E+04	1715000E+05	1272792E+06	1649539E+05	
1272792E+04	6363961E+05	2916000E+06	3930000E+00					
3981115E+01	1990558E+03	5000000E+02	7924495E+02	1584899E+01	1504720E+01	2852818E+02	3430000E+03	
3779645E+00	7166008E+02	2500000E+04	9952788E+04	5832000E+04	6803361E+01	8575000E+06	1889822E+02	
5990355E+00	9243131E+04	1800000E+02	1365523E+04	3583004E+04	1715000E+05	1791502E+06	2321786E+05	
1426409E+04	7132045E+05	2916000E+06	4240000E+00					
5196152E+01	2598076E+03	5000000E+02	8660254E+02	1732051E+01	1963961E+01	3117691E+02	3430000E+03	
3779645E+00	9353074E+02	2500000E+04	1299038E+05	5832000E+04	6803361E+01	8575000E+06	1889822E+02	
6546537E+00	1010132E+05	1800000E+02	1782280E+04	4676537E+04	1715000E+05	2338269E+06	3030396E+05	
1558846E+04	7794229E+05	2916000E+06	4592000E+00					
6547900E+01	3273950E+03	5000000E+02	9354143E+02	1870829E+01	2474874E+01	3367492E+02	3430000E+03	
3779645E+00	1178622E+03	2500000E+04	1636975E+05	5832000E+04	6803361E+01	8575000E+06	1889822E+02	
7071068E+00	1091067E+05	1800000E+02	2245930E+04	5893110E+04	1715000E+05	2946555E+06	3818736E+05	
1683746E+04	8418729E+05	2916000E+06	4919000E+00					
8000000E+01	4000000E+03	5000000E+02	1000000E+03	2000000E+01	3023716E+01	3600000E+02	3430000E+03	
3779645E+00	1440000E+03	2500000E+04	2000000E+05	5832000E+04	6803361E+01	8575000E+06	1889822E+02	
7559289E+00	1166400E+05	1800000E+02	2744000E+04	7200000E+04	1715000E+05	3600000E+06	4665600E+05	
1800000E+04	9000000E+05	2916000E+06	5292000E+00					

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TRANSGENERATED  
DATA INPUT

CASE NUMBER	209	GROUP NUMBER	2
.8301867E+01	.4150934E+03	.5000000E+02	.1012423E+03
.3779645E+00	.1494336E+03	.2500000E+04	.2075467E+05
.7653197E+00	.1180890E+05	.1800000E+02	.2847540E+04
.1822361E+04	.9111806E+05	.2916000E+06	.5419000E+00
CASE NUMBER	210	GROUP NUMBER	2
.8607439E+01	.4303719E+03	.5000000E+02	.1024695E+03
.3779645E+00	.1549339E+03	.2500000E+04	.2151860E+05
.7745967E+00	.1195204E+05	.1800000E+02	.2952351E+04
.1844451E+04	.9222566E+05	.2916000E+06	.5488000E+00
CASE NUMBER	211	GROUP NUMBER	2
.8916670E+01	.4458335E+03	.5000000E+02	.1036822E+03
.3779645E+00	.1605001E+03	.2500000E+04	.2229167E+05
.7837638E+00	.1209348E+05	.1800000E+02	.3058418E+04
.1866280E+04	.9331399E+05	.2916000E+06	.5498000E+00
CASE NUMBER	212	GROUP NUMBER	2
0.	0.	.5000000E+020.	0.
.3333333E+000.	0.	.2500000E+040.	0.
0.	0.	.1800000E+020.	0.
0.	0.	.2916000E+06	.3094000E+00
CASE NUMBER	213	GROUP NUMBER	2
.353534E+00	.1767747E+02	.5000000E+02	.353534E+02
.3333333E+00	.6363961E+01	.2500000E+04	.8838835E+03
.2337023E+00	.4123847E+04	.1800000E+02	.2577404E+03
.6363961E+03	.3181981E+05	.2916000E+06	.3344000E+00
CASE NUMBER	214	GROUP NUMBER	2
.1000000E+01	.5000000E+02	.5000000E+02	.5000000E+02
.3333333E+00	.1800000E+02	.2500000E+04	.2500000E+04
.3333333E+00	.5832000E+04	.1800000E+02	.7290000E+03
.9000000E+03	.4500000E+05	.2916000E+06	.3620000E+00
CASE NUMBER	215	GROUP NUMBER	2
.1837117E+01	.9185587E+02	.5000000E+02	.6123724E+02
.3333333E+00	.3306811E+02	.2500000E+04	.4592793E+04
.4082483E+00	.7142712E+04	.1800000E+02	.1339259E+04
.1102270E+04	.5511352E+05	.2916000E+06	.3920000E+00
CASE NUMBER	216	GROUP NUMBER	2
.2828427E+01	.1414214E+03	.5000000E+02	.7071068E+02
.3333333E+00	.5091169E+02	.2500000E+04	.7071068E+04
.4714045E+00	.8247693E+04	.1800000E+02	.2051923E+04
.1272792E+04	.6363961E+05	.2916000E+06	.4220000E+00

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TRANSGENERATED  
DATA INPUT

CASE NUMBER	217	GROUP NUMBER	2
.3952847E+01	.1978424E+03	.5000000E+02	.7905694E+02
.3333333E+00	.7115125E+02	.2500000E+04	.9882118E+04
.5270463E+00	.9221202E+04	.1800000E+02	.2881626E+04
.1423025E+04	.7115125E+05	.2916000E+06	.4503000E+00
CASE NUMBER	218	GROUP NUMBER	2
.5196152E+01	.2598076E+03	.5000000E+02	.8660254E+02
.3333333E+00	.9353074E+02	.2500000E+04	.1299038E+05
.5773503E+00	.1010132E+05	.1800000E+02	.3787995E+04
.1558846E+04	.7794229E+05	.2916000E+06	.4854000E+00
CASE NUMBER	219	GROUP NUMBER	2
.6547900E+01	.3273950E+03	.5000000E+02	.9354143E+02
.3333333E+00	.1178622E+03	.2500000E+04	.1636975E+05
.6236096E+00	.1091067E+05	.1800000E+02	.4773419E+04
.1683746E+04	.8418729E+05	.2916000E+06	.5325000E+00
CASE NUMBER	220	GROUP NUMBER	2
.6830520E+01	.3415260E+03	.5000000E+02	.9486833E+02
.3333333E+00	.1229494E+03	.2500000E+04	.1707630E+05
.6324555E+00	.1106544E+05	.1800000E+02	.4979449E+04
.1707630E+04	.8538150E+05	.2916000E+06	.5439000E+00
CASE NUMBER	221	GROUP NUMBER	2
.7117092E+01	.3558546E+03	.5000000E+02	.9617692E+02
.3333333E+00	.1281077E+03	.2500000E+04	.1779273E+05
.6411795E+00	.1121808E+05	.1800000E+02	.5188360E+04
.1731185E+04	.8655923E+05	.2916000E+06	.5494000E+00
CASE NUMBER	222	GROUP NUMBER	2
.7407554E+01	.3703782E+03	.5000000E+02	.9746794E+02
.3333333E+00	.1333261E+03	.2500000E+04	.1851891E+05
.6497863E+00	.1136866E+05	.1800000E+02	.5400114E+04
.1754423E+04	.8772115E+05	.2916000E+06	.5502000E+00
CASE NUMBER	223	GROUP NUMBER	2
0.	0.	.5000000E+020.	0.
.3162278E+000.	0.	.2500000E+040.	0.
0.	0.	.1800000E+020.	0.
0.	0.	.2916000E+06	.3174000E+00
CASE NUMBER	224	GROUP NUMBER	2
.353534E+00	.1767747E+02	.5000000E+02	.353534E+02
.3162278E+00	.6363961E+01	.2500000E+04	.8838835E+03
.2236068E+00	.4123847E+04	.1800000E+02	.2577404E+03
.6363961E+03	.3181981E+05	.2916000E+06	.3455000E+00

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## TRANSGENERATED

## DATA INPUT

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CASE NUMBER 225 GROUP NUMBER 2
.1000000E+01 .5000000E+02 .5000000E+02 .5000000E+02 .1000000E+01 .3162278E+00 .1800000E+02 .1000000E+04
.3162278E+00 .1800000E+02 .2500000E+04 .2500000E+04 .5832000E+04 .5692100E+01 .2500000E+07 .1581139E+02
.3162278E+00 .5832000E+04 .1800000E+02 .1000000E+04 .9000000E+03 .5000000E+05 .4500000E+05 .5832000E+04
.9000000E+03 .4500000E+05 .2916000E+06 .3743000E+00

CASE NUMBER 226 GROUP NUMBER 2
.1837117E+01 .5185587E+02 .5000000E+02 .6123724E+02 .1224745E+01 .5809475E+00 .2204541E+02 .1000000E+04
.3162278E+00 .3306811E+02 .2500000E+04 .4592793E+04 .5832000E+04 .5692100E+01 .2500000E+07 .1581139E+02
.3872983E+00 .7142712E+04 .1800000E+02 .1837117E+04 .1653406E+04 .5000000E+05 .8267028E+05 .1071407E+05
.1102270E+04 .5511352E+05 .2916000E+06 .4040000E+00

CASE NUMBER 227 GROUP NUMBER 2
.2930041E+01 .1465021E+03 .5000000E+02 .7154752E+02 .1430950E+01 .9265604E+00 .2575711E+02 .1000000E+04
.3162278E+00 .5274074E+02 .2500000E+04 .7325103E+04 .5832000E+04 .5692100E+01 .2500000E+07 .1581139E+02
.4525062E+00 .8245303E+04 .1800000E+02 .2930041E+04 .2637037E+04 .5000000E+05 .1318519E+06 .1708800E+05
.1287855E+04 .6439277E+05 .2916000E+06 .4350000E+00

CASE NUMBER 228 GROUP NUMBER 2
.4056322E+01 .2033161E+03 .5000000E+02 .7980631E+02 .1586126E+01 .1285884E+01 .2873027E+02 .1000000E+04
.3162278E+00 .7119379E+02 .2500000E+04 .1016580E+05 .5832000E+04 .5692100E+01 .2500000E+07 .1581139E+02
.5047394E+00 .9308508E+04 .1800000E+02 .4066322E+04 .3659689E+04 .5000000E+05 .1828845E+06 .2371479E+05
.1436514E+04 .7182568E+05 .2916000E+06 .4650000E+00

CASE NUMBER 229 GROUP NUMBER 2
.5196152E+01 .2598076E+03 .5000000E+02 .8660254E+02 .1732051E+01 .1643168E+01 .3117691E+02 .1000000E+04
.3162278E+00 .9353074E+02 .2500000E+04 .1299038E+05 .5832000E+04 .5692100E+01 .2500000E+07 .1581139E+02
.5477226E+00 .1010132E+05 .1800000E+02 .5196152E+04 .4676537E+04 .5000000E+05 .2338268E+06 .3030386E+05
.1558846E+04 .7794229E+05 .2916000E+06 .5026000E+00

CASE NUMBER 230 GROUP NUMBER 2
.6547900E+01 .3273950E+03 .5000000E+02 .9354143E+02 .1870829E+01 .2070628E+01 .3367492E+02 .1000000E+04
.3162278E+00 .1178622E+03 .2500000E+04 .1636975E+05 .5832000E+04 .5692100E+01 .2500000E+07 .1581139E+02
.5160800E+00 .4123847E+04 .1800000E+02 .6547900E+04 .5893110E+04 .5000000E+05 .2946555E+06 .3818736E+05
.1683746E+04 .8418729E+05 .2916000E+06 .5495000E+00

CASE NUMBER 231 GROUP NUMBER 2
.6830520E+01 .3415260E+03 .5000000E+02 .9486833E+02 .1897387E+01 .2160000E+01 .3415260E+02 .1000000E+04
.3162278E+00 .1229494E+03 .2500000E+04 .1707630E+05 .5832000E+04 .5692100E+01 .2500000E+07 .1581139E+02
.6000000E+00 .1106544E+05 .1800000E+02 .6830520E+04 .6147468E+04 .5000000E+05 .3073734E+06 .3983559E+05
.1707630E+04 .8538150E+05 .2916000E+06 .5488000E+00

CASE NUMBER 232 GROUP NUMBER 2
0. 0. .5000000E+020. 0. 0. 0. 0. 0.
.2886751E+000. .2500000E+040. .5832000E+04 .5196152E+01 .4320000E+07 .1443376E+02
0. 0. .1800000E+020. 0. .8640000E+050. 0.
0. 0. .2916000E+06 .3364000E+00

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## TRANSGENERATED

## DATA INPUT

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CASE NUMBER 233 GROUP NUMBER 2
.3535534E+00 .1767767E+02 .5000000E+02 .3525534E+02 .7071068E+00 .1020621E+00 .1272792E+02 .1728000E+04
.2886751E+00 .6363961E+01 .2500000E+04 .8838835E+03 .5832000E+04 .5196152E+01 .4320000E+07 .1443376E+02
.2041241E+00 .4123847E+04 .1800000E+02 .6109403E+03 .3181981E+03 .8640000E+05 .1590990E+05 .2061923E+04
.6363961E+03 .3181981E+05 .2916000E+06 .3647000E+00

CASE NUMBER 234 GROUP NUMBER 2
.1000000E+01 .5000000E+02 .5000000E+02 .5000000E+02 .1000000E+01 .2886751E+00 .1800000E+02 .1728000E+04
.2886751E+00 .1800000E+02 .2500000E+04 .2500000E+04 .5832000E+04 .5196152E+01 .4320000E+07 .1443376E+02
.2886751E+00 .5832000E+04 .1800000E+02 .1728000E+04 .9000000E+03 .8640000E+05 .4500000E+05 .5832000E+04
.9000000E+03 .4500000E+05 .2916000E+06 .3935000E+00

CASE NUMBER 235 GROUP NUMBER 2
.1781105E+01 .8805524E+02 .5000000E+02 .6038074E+02 .1207615E+01 .5083872E+00 .2173706E+02 .1728000E+04
.2886751E+00 .3189985E+02 .2500000E+04 .4402762E+04 .5832000E+04 .5196152E+01 .4320000E+07 .1443376E+02
.3486083E+00 .7042809E+04 .1800000E+02 .3043189E+04 .1584994E+04 .8640000E+05 .7924971E+05 .1027076E+05
.1086853E+04 .5434266E+05 .2916000E+06 .4180000E+00

CASE NUMBER 236 GROUP NUMBER 2
.2715549E+01 .1357775E+03 .5000000E+02 .6975723E+02 .1395145E+01 .7839116E+00 .2511260E+02 .1728000E+04
.2886751E+00 .4887989E+02 .2500000E+04 .6788874E+04 .5832000E+04 .5196152E+01 .4320000E+07 .1443376E+02
.4027436E+00 .8136484E+04 .1800000E+02 .4692469E+04 .2443995E+04 .8640000E+05 .1221997E+06 .1583708E+05
.1255630E+04 .6278151E+05 .2916000E+06 .4480000E+00

CASE NUMBER 237 GROUP NUMBER 2
.3952847E+01 .1976424E+03 .5000000E+02 .7905694E+02 .1581139E+01 .1141089E+01 .2846050E+02 .1728000E+04
.2886751E+00 .7115125E+02 .2500000E+04 .9882118E+04 .5832000E+04 .5196152E+01 .4320000E+07 .1443376E+02
.4564355E+00 .9221202E+04 .1800000E+02 .6830520E+04 .3557562E+04 .8640000E+05 .1778781E+06 .2305300E+05
.1423025E+04 .7115125E+05 .2916000E+06 .4892000E+00

CASE NUMBER 238 GROUP NUMBER 2
.4192374E+01 .2096187E+03 .5000000E+02 .8062258E+02 .1612452E+01 .1210234E+01 .2902413E+02 .1728000E+04
.2886751E+00 .7546273E+02 .2500000E+04 .1048094E+05 .5832000E+04 .5196152E+01 .4320000E+07 .1443376E+02
.4654747E+00 .9403817E+04 .1800000E+02 .7244422E+04 .3773137E+04 .8640000E+05 .1886568E+06 .2444893E+05
.1451206E+04 .7256032E+05 .2916000E+06 .4987000E+00

CASE NUMBER 239 GROUP NUMBER 2
.4436553E+01 .2218278E+03 .5000000E+02 .8215838E+02 .1643168E+01 .1280722E+01 .2957702E+02 .1728000E+04
.2886751E+00 .7985795E+02 .2500000E+04 .1109138E+05 .5832000E+04 .5196152E+01 .4320000E+07 .1443376E+02
.4743416E+00 .9582954E+04 .1800000E+02 .7665363E+04 .3992897E+04 .8640000E+05 .1996449E+06 .2587398E+05
.1478851E+04 .7394255E+05 .2916000E+06 .5068000E+00

CASE NUMBER 240 GROUP NUMBER 2
.4885296E+01 .2342648E+03 .5000000E+02 .8366600E+02 .1573320E+01 .1352528E+01 .3011976E+02 .1728000E+04
.2886751E+00 .8433533E+02 .2500000E+04 .1171324E+05 .5832000E+04 .5196152E+01 .4320000E+07 .1443376E+02
.4830459E+00 .9758803E+04 .1800000E+02 .8086192E+04 .4216767E+04 .8640000E+05 .2108383E+06 .2732465E+05
.1505988E+04 .7529940E+05 .2916000E+06 .5156000E+00

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## TRANSGENERATED

## DATA INPUT

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CASE NUMBER 241
.4938522E+01-.2469261E+03-.5000000E+02-.8514693E+02 .1702538E+01 .1425629E+01 .3065290E+02 .1728000E+04
.2886751E+00 .8889340E+02 .2500000E+04 .1234631E+05 .5832000E+04 .5196152E+01 .4320000E+07-.1443376E+02
.4915960E+00 .9931538E+04 .1800000E+02 .8533766E+04-.4444670E+04-.8640000E+05 .2222335E+06 .2880146E+05
-.1532645E+04 .7663224E+05-.2916000E+06 .5257000E+00
CASE NUMBER 242
.5196152E+01-.2598078E+03-.5000000E+02-.8660254E+02 .1732051E+01 .1500000E+01 .3117691E+02 .1728000E+04
.2886751E+00 .9353074E+02 .2500000E+04 .1299038E+05 .5832000E+04 .5196152E+01 .4320000E+07-.1443376E+02
.5000000E+00 .1010132E+05 .1800000E+02 .8978951E+04-.4676537E+04-.8640000E+05 .2338269E+06 .3030396E+05
-.1558846E+04 .7794229E+05-.2916000E+06 .5361000E+00
CASE NUMBER 243
0. 0. -.5000000E+020. 0. 0. 0. .3048625E+04
.2626129E+000. .2500000E+040. .5832000E+04 .4727032E+01 .7621562E+07-.1313064E+02
0. 0. .1800000E+020. 0. -.1524313E+060. 0.
0. 0. -.2916000E+06 .3532000E+00
CASE NUMBER 244
.3535534E+00-.1767757E+02-.5000000E+02-.3535534E+02 .7071068E+00 .9284767E+01 .1272792E+02 .3048625E+04
.2626129E+00 .6363961E+01 .2500000E+04 .8838835E+03 .5832000E+04 .4727032E+01 .7621562E+07-.1313064E+02
.1856955E+00 .4123847E+04 .1800000E+02 .1077852E+04-.3181981E+03-.1524313E+06 .1590990E+05 .2061923E+04
-.6363961E+03 .3181981E+05-.2916000E+06 .3807000E+00
CASE NUMBER 245
.1000000E+01-.5000000E+02-.5000000E+02-.5000000E+02 .1000000E+01 .2626129E+00 .1800000E+02 .3048625E+04
.2626129E+00 .1800000E+02 .2500000E+04 .2500000E+04 .5832000E+04 .4727032E+01 .7621562E+07-.1313064E+02
.2626129E+00 .5832000E+04 .1800000E+02 .3048625E+04-.9000000E+03-.1524313E+06 .4500000E+05 .5832000E+04
-.9000000E+03 .4500000E+05-.2916000E+06 .4070000E+00
CASE NUMBER 246
.1837117E+01-.9185587E+02-.5000000E+02-.6123724E+02 .1224745E+01 .4824506E+00 .2204541E+02 .3048625E+04
.2626129E+00 .3306811E+02 .2500000E+04 .4592793E+04 .5832000E+04 .4727032E+01 .7621562E+07-.1313064E+02
.3216338E+00 .7142712E+04 .1800000E+02 .5600682E+04-.1653406E+04-.1524313E+06 .8267028E+05 .1071407E+05
-.1102270E+04 .5511352E+05-.2916000E+06 .4382000E+00
CASE NUMBER 247
.2828427E+01-.1414214E+03-.5000000E+02-.7071068E+02 .1414214E+01 .7427814E+00 .2545584E+02 .3048625E+04
.2626129E+00 .5091169E+02 .2500000E+04 .7071068E+04 .5832000E+04 .4727032E+01 .7621562E+07-.1313064E+02
.3713907E+00 .8247693E+04 .1800000E+02 .8622814E+04-.2545584E+04-.1524313E+06 .1272792E+06 .1649539E+05
-.1272792E+06 .6363961E+05-.2916000E+06 .4759000E+00
CASE NUMBER 248
.3043189E+01-.1521595E+03-.5000000E+02-.7245688E+02 .1449138E+01 .7991806E+00 .2608448E+02 .3048625E+04
.2626129E+00 .5477740E+02 .2500000E+04 .7607973E+04 .5832000E+04 .4727032E+01 .7621562E+07-.1313064E+02
.3805622E+00 .8451371E+04 .1800000E+02 .9277542E+04-.2738870E+04-.1524313E+06 .1369435E+06 .1774788E+05
-.1304224E+04 .6521120E+05-.2916000E+06 .4854000E+00

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## TRANSGENERATED

## DATA INPUT

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CASE NUMBER 249
.3263127E+01-.1631564E+03-.5000000E+02-.7416198E+02 .1483240E+01 .8569392E+00 .2669831E+02 .3048625E+04
.2626129E+00 .5873629E+02 .2500000E+04 .8157818E+04 .5832000E+04 .4727032E+01 .7621562E+07-.1313064E+02
.3895178E+00 .8650254E+04 .1800000E+02 .9948052E+04-.2936815E+04-.1524313E+06 .1468407E+06 .1903056E+05
-.1334916E+04 .6674579E+05-.2916000E+06 .4939000E+00
CASE NUMBER 250
.3488123E+01-.1744061E+03-.5000000E+02-.7582875E+02 .1516575E+01 .9160259E+00 .2729835E+02 .3048625E+04
.2626129E+00 .6278621E+02 .2500000E+04 .8720307E+04 .5832000E+04 .4727032E+01 .7621562E+07-.1313064E+02
.3982721E+00 .8844666E+04 .1800000E+02 .1063398E+05-.3139310E+04-.1524313E+06 .1569655E+06 .2034273E+05
-.1364918E+04 .6824588E+05-.2916000E+06 .5022000E+00
CASE NUMBER 251
.3718064E+01-.1859032E+03-.5000000E+02-.7745967E+02 .1549193E+01 .9764114E+00 .2788548E+02 .3048625E+04
.2626129E+00 .6892515E+02 .2500000E+04 .9295160E+04 .5832000E+04 .4727032E+01 .7621562E+07-.1313064E+02
.4068381E+00 .9034896E+04 .1800000E+02 .1133498E+05-.3346258E+04-.1524313E+06 .1673129E+06 .2168375E+05
-.1394274E+04 .6971370E+05-.2916000E+06 .5103000E+00
CASE NUMBER 252
.3952847E+01-.1976424E+03-.5000000E+02-.7905694E+02 .1581139E+01 .1038068E+01 .2846050E+02 .3048625E+04
.2626129E+00 .7115125E+02 .2500000E+04 .9882118E+04 .5832000E+04 .4727032E+01 .7621562E+07-.1313064E+02
.4152274E+00 .9221202E+04 .1800000E+02 .1205075E+05-.3557562E+04-.1524313E+06 .1778781E+06 .2305300E+05
-.1423025E+04 .7115125E+05-.2916000E+06 .5189000E+00
CASE NUMBER 253
0. 0. 0. 0. 0. 0. 0. .3430000E+03
.3779645E+000. 0. 0. 0. .5832000E+04 .6803361E+010. 0.
0. 0. .1800000E+020. 0. 0. 0.
0. 0. 0. .2848000E+00
CASE NUMBER 254
.3535534E+000. 0. 0. .7071068E+00 .1336306E+00 .1272792E+02 .3430000E+03
.3779645E+00 .6363961E+010. .5832000E+04 .6803361E+010. 0.
.2672612E+00 .4123847E+04 .1800000E+02 .1212688E+030. 0. 0. .2061923E+04
0. 0. 0. .3048000E+00
CASE NUMBER 255
.1026905E+010. 0. 0. .1008889E+01 .3881336E+00 .1816000E+02 .3430000E+03
.3779645E+00 .1848429E+020. 0. .5832000E+04 .6803361E+010. 0.
.3813242E+00 .5883841E+04 .1800000E+02 .3522284E+030. 0. 0. .5988909E+04
0. 0. 0. .3275000E+00
CASE NUMBER 256
.1837117E+010. 0. 0. .1224745E+01 .6943651E+00 .2204541E+02 .3430000E+03
.3779645E+00 .3306811E+020. .5832000E+04 .6803361E+010. 0.
.4629100E+00 .7142712E+04 .1800000E+02 .6301312E+030. 0. 0. .1071407E+05
0. 0. 0. .3474000E+00

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## TRANSGENERATED

## DATA INPUT

CASE NUMBER	257			GROUP NUMBER	2		
.2828427E+010.	0.	0.	.1414214E+01	.1069045E+01	.2545584E+02	.3430000E+03	
.3779645E+00	.5091169E+020.	0.	.5832000E+04	.6803361E+010.	0.	0.	
.5345225E+00	.8247693E+04	.1800000E+02	.9701505E+030.	0.	0.	.1649539E+05	
0.	0.	0.	.3734000E+00				
CASE NUMBER	258			GROUP NUMBER	2		
.3952847E+010.	0.	0.	.1581139E+01	.1494036E+01	.2846050E+02	.3430000E+03	
.3779645E+00	.7115125E+020.	0.	.5832000E+04	.6803361E+010.	0.	0.	
.5976143E+00	.9221202E+04	.1800000E+02	.1355827E+040.	0.	0.	.2305300E+05	
0.	0.	0.	.3985000E+00				
CASE NUMBER	259			GROUP NUMBER	2		
.5196152E+010.	0.	0.	.1732051E+01	.1963961E+01	.3117691E+02	.3430000E+03	
.3779645E+00	.9353074E+020.	0.	.5832000E+04	.6803361E+010.	0.	0.	
.6546537E+00	.1010132E+05	.1800000E+02	.1782280E+040.	0.	0.	.3030396E+05	
0.	0.	0.	.4261000E+00				
CASE NUMBER	260			GROUP NUMBER	2		
.6614829E+010.	0.	0.	.1877181E+01	.2500170E+01	.3378926E+02	.3430000E+03	
.3779645E+00	.1190669E+030.	0.	.5832000E+04	.6803361E+010.	0.	0.	
.7095078E+00	.1094772E+05	.1800000E+02	.2268886E+040.	0.	0.	.3857768E+05	
0.	0.	0.	.4579000E+00				
CASE NUMBER	261			GROUP NUMBER	2		
.8000000E+010.	0.	0.	.2000000E+01	.3023716E+01	.3600000E+02	.3430000E+03	
.3779645E+00	.1440000E+030.	0.	.5832000E+04	.6803361E+010.	0.	0.	
.7559289E+00	.1166400E+05	.1800000E+02	.2744000E+040.	0.	0.	.4665600E+05	
0.	0.	0.	.4896000E+00				
CASE NUMBER	262			GROUP NUMBER	2		
.8301867E+010.	0.	0.	.2024846E+01	.3137811E+01	.3644722E+02	.3430000E+03	
.3779645E+00	.1494336E+030.	0.	.5832000E+04	.6803361E+010.	0.	0.	
.7653197E+00	.1180890E+05	.1800000E+02	.2847540E+040.	0.	0.	.4841649E+05	
0.	0.	0.	.4965000E+00				
CASE NUMBER	263			GROUP NUMBER	2		
0.	0.	0.	0.	0.	0.	.7290000E+03	
.3333333E+000.	0.	0.	.5832000E+04	.6000000E+010.	0.	0.	
0.	0.	.1800000E+020.	0.	0.	0.	0.	
0.	0.	0.	.2948000E+00				
CASE NUMBER	264			GROUP NUMBER	2		
.3535534E+000.	0.	0.	.7071058E+00	.1178511E+00	.1272792E+02	.7290000E+03	
.3333333E+00	.4363961E+010.	0.	.5832000E+04	.6000000E+010.	0.	0.	
.2357023E+00	.4123847E+04	.1800000E+02	.2577404E+030.	0.	0.	.2061923E+04	
0.	0.	0.	.3197000E+00				

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## DATA INPUT

CASE NUMBER	265			GROUP NUMBER	2		
.1000000E+010.	0.	0.	.1000000E+01	.3333333E+00	.1800000E+02	.7290000E+03	
.3333333E+00	.1800000E+020.	0.	.5832000E+04	.6000000E+010.	0.	0.	
.3333333E+00	.5832000E+04	.1800000E+02	.7290000E+030.	0.	0.	.5832000E+04	
0.	0.	0.	.3445000E+00				
CASE NUMBER	266			GROUP NUMBER	2		
.1837117E+010.	0.	0.	.1224745E+01	.6123724E+00	.2204541E+02	.7290000E+03	
.3333333E+00	.3306811E+020.	0.	.5832000E+04	.6000000E+010.	0.	0.	
.4082483E+00	.7142712E+04	.1800000E+02	.1339259E+040.	0.	0.	.1071407E+05	
0.	0.	0.	.3664000E+00				
CASE NUMBER	267			GROUP NUMBER	2		
.2828427E+010.	0.	0.	.1414214E+01	.9428090E+00	.2545584E+02	.7290000E+03	
.3333333E+00	.5091169E+020.	0.	.5832000E+04	.6000000E+010.	0.	0.	
.4714045E+00	.8247693E+04	.1800000E+02	.2061923E+040.	0.	0.	.1649539E+05	
0.	0.	0.	.3913000E+00				
CASE NUMBER	268			GROUP NUMBER	2		
.3952847E+010.	0.	0.	.1581139E+01	.1317616E+01	.2846050E+02	.7290000E+03	
.3333333E+00	.7115125E+020.	0.	.5832000E+04	.6000000E+010.	0.	0.	
.5270463E+00	.9221202E+04	.1800000E+02	.2881626E+040.	0.	0.	.2305300E+05	
0.	0.	0.	.4213000E+00				
CASE NUMBER	269			GROUP NUMBER	2		
.5196152E+010.	0.	0.	.1732051E+01	.1732051E+01	.3117691E+02	.7290000E+03	
.3333333E+00	.9353074E+020.	0.	.5832000E+04	.6000000E+010.	0.	0.	
.5773503E+00	.1010132E+05	.1800000E+02	.3787995E+040.	0.	0.	.3030396E+05	
0.	0.	0.	.4521000E+00				
CASE NUMBER	270			GROUP NUMBER	2		
.6547800E+010.	0.	0.	.1870829E+01	.2182633E+01	.3367492E+02	.7290000E+03	
.3333333E+00	.1178622E+030.	0.	.5832000E+04	.6000000E+010.	0.	0.	
.6236096E+00	.1091067E+05	.1800000E+02	.4773419E+040.	0.	0.	.3818736E+05	
0.	0.	0.	.4912000E+00				
CASE NUMBER	271			GROUP NUMBER	2		
.6830520E+010.	0.	0.	.1897367E+01	.2276840E+01	.3415260E+02	.7290000E+03	
.3333333E+00	.1229494E+030.	0.	.5832000E+04	.6000000E+010.	0.	0.	
.6324555E+00	.1106544E+05	.1800000E+02	.4979449E+040.	0.	0.	.3983559E+05	
0.	0.	0.	.4981000E+00				
CASE NUMBER	272			GROUP NUMBER	2		
0.	0.	0.	0.	0.	0.	.1000000E+04	
.3162278E+000.	0.	0.	.5832000E+04	.5692100E+010.	0.	0.	
0.	0.	.1800000E+020.	0.	0.	0.	0.	
0.	0.	0.	.3015000E+00				

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## DATA INPUT

CASE NUMBER	273	274	275	276	277	278	279	280
3535534E+000.	0.	0.	0.	0.	0.	0.	0.	0.
3162278E+00	.6363961E+010.	0.	0.	0.	0.	0.	0.	0.
2236068E+00	.4123847E+04	.1800000E+02	.3535534E+030.	0.	0.	0.	0.	0.
0.	0.	0.	.3269000E+00	0.	0.	0.	0.	0.
1000000E+010.	0.	0.	0.	0.	0.	0.	0.	0.
3162278E+00	.1800000E+020.	0.	0.	0.	0.	0.	0.	0.
3162278E+00	.5832000E+04	.1800000E+02	.1000000E+040.	0.	0.	0.	0.	0.
0.	0.	0.	.3505000E+00	0.	0.	0.	0.	0.
1837117E+010.	0.	0.	0.	0.	0.	0.	0.	0.
3162278E+00	.3306811E+020.	0.	0.	0.	0.	0.	0.	0.
3872983E+00	.7142712E+04	.1800000E+02	.1837117E+040.	0.	0.	0.	0.	0.
0.	0.	0.	.3736000E+00	0.	0.	0.	0.	0.
2828427E+010.	0.	0.	0.	0.	0.	0.	0.	0.
3162278E+00	.5091169E+020.	0.	0.	0.	0.	0.	0.	0.
4472136E+00	.8247693E+04	.1800000E+02	.2828427E+040.	0.	0.	0.	0.	0.
0.	0.	0.	.4019000E+00	0.	0.	0.	0.	0.
3952847E+010.	0.	0.	0.	0.	0.	0.	0.	0.
3162278E+00	.7115125E+020.	0.	0.	0.	0.	0.	0.	0.
5000000E+00	.9221202E+04	.1800000E+02	.3952847E+040.	0.	0.	0.	0.	0.
0.	0.	0.	.4310000E+00	0.	0.	0.	0.	0.
5196152E+010.	0.	0.	0.	0.	0.	0.	0.	0.
3162278E+00	.9353074E+020.	0.	0.	0.	0.	0.	0.	0.
5477226E+00	.1010132E+05	.1800000E+02	.5196152E+040.	0.	0.	0.	0.	0.
0.	0.	0.	.4852000E+00	0.	0.	0.	0.	0.
5458113E+010.	0.	0.	0.	0.	0.	0.	0.	0.
3162278E+00	.9824604E+020.	0.	0.	0.	0.	0.	0.	0.
5567764E+00	.1026830E+05	.1800000E+02	.5458113E+040.	0.	0.	0.	0.	0.
0.	0.	0.	.4732000E+00	0.	0.	0.	0.	0.
5724334E+010.	0.	0.	0.	0.	0.	0.	0.	0.
3162278E+00	.1030380E+030.	0.	0.	0.	0.	0.	0.	0.
5656854E+00	.1043260E+05	.1800000E+02	.5724334E+040.	0.	0.	0.	0.	0.
0.	0.	0.	.4816000E+00	0.	0.	0.	0.	0.

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## TRANSGENERATED

## DATA INPUT

CASE NUMBER	281	282	283	284	285	286	287	288
5994748E+010.	0.	0.	0.	0.	0.	0.	0.	0.
3162278E+00	.1079055E+030.	0.	0.	0.	0.	0.	0.	0.
5744563E+00	.1059435E+05	.1800000E+02	.5994748E+040.	0.	0.	0.	0.	0.
0.	0.	0.	.4901000E+00	0.	0.	0.	0.	0.
2886751E+000.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	.1800000E+020.	0.	0.	0.	0.	0.
0.	0.	0.	.3116000E+00	0.	0.	0.	0.	0.
3535534E+000.	0.	0.	0.	0.	0.	0.	0.	0.
2886751E+00	.6363961E+010.	0.	0.	0.	0.	0.	0.	0.
2041241E+00	.4123847E+04	.1800000E+02	.6109403E+030.	0.	0.	0.	0.	0.
0.	0.	0.	.3365000E+00	0.	0.	0.	0.	0.
1000000E+010.	0.	0.	0.	0.	0.	0.	0.	0.
2886751E+00	.1800000E+020.	0.	0.	0.	0.	0.	0.	0.
2886751E+00	.5832000E+04	.1800000E+02	.1728000E+040.	0.	0.	0.	0.	0.
0.	0.	0.	.3633000E+00	0.	0.	0.	0.	0.
1837117E+010.	0.	0.	0.	0.	0.	0.	0.	0.
2886751E+00	.3306811E+020.	0.	0.	0.	0.	0.	0.	0.
3535534E+00	.7142712E+04	.1800000E+02	.3174539E+040.	0.	0.	0.	0.	0.
0.	0.	0.	.3909000E+00	0.	0.	0.	0.	0.
2828427E+010.	0.	0.	0.	0.	0.	0.	0.	0.
2886751E+00	.5091169E+020.	0.	0.	0.	0.	0.	0.	0.
4082483E+00	.8247693E+04	.1800000E+02	.4887522E+040.	0.	0.	0.	0.	0.
0.	0.	0.	.4195000E+00	0.	0.	0.	0.	0.
3952847E+010.	0.	0.	0.	0.	0.	0.	0.	0.
2886751E+00	.7115125E+020.	0.	0.	0.	0.	0.	0.	0.
4564355E+00	.9221202E+04	.1800000E+02	.6830520E+040.	0.	0.	0.	0.	0.
0.	0.	0.	.4522000E+00	0.	0.	0.	0.	0.
4192374E+010.	0.	0.	0.	0.	0.	0.	0.	0.
2886751E+00	.7546273E+020.	0.	0.	0.	0.	0.	0.	0.
4654747E+00	.9403817E+04	.1800000E+02	.7244422E+040.	0.	0.	0.	0.	0.
0.	0.	0.	.4597000E+00	0.	0.	0.	0.	0.

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DATA INPUT
CASE NUMBER 289                                GROUP NUMBER 2
.4436553E+01. 0. 0. .1643168E+01 .1280722E+01 .2957702E+02 .1728000E+04
.2886751E+00 .7985795E+02. 0. 0. .5832000E+04 .5196152E+01. 0.
.4743416E+00 .9582954E+04 .1800000E+02 .7666363E+04. 0. 0. .2587398E+05
0. 0. 0. .4676000E+00
CASE NUMBER 290                                GROUP NUMBER 2
.4685296E+01. 0. 0. .1673320E+01 .1352528E+01 .3011976E+02 .1728000E+04
.2886751E+00 .8433533E+02. 0. 0. .5832000E+04 .5196152E+01. 0.
.4830459E+00 .5758803E+04 .1800000E+02 .8096192E+04. 0. 0. .2732465E+05
0. 0. 0. .4760000E+00
CASE NUMBER 291                                GROUP NUMBER 2
0. 0. 0. 0. 0. 0. .3048625E+04
.2626129E+00. 0. 0. .5832000E+04 .4727032E+01. 0.
0. 0. 0. .1800000E+02. 0. 0.
0. 0. 0. .3263000E+00
CASE NUMBER 292                                GROUP NUMBER 2
.3535534E+00. 0. 0. .7071068E+00 .9284767E-01 .1272792E+02 .3048625E+04
.2626129E+00 .6363961E+01. 0. 0. .5832000E+04 .4727032E+01. 0.
.1856953E+00 .4123847E+04 .1800000E+02 .1077852E+04. 0. 0. .2061923E+04
0. 0. 0. .3533000E+00
CASE NUMBER 293                                GROUP NUMBER 2
.1000000E+01. 0. 0. .1000000E+01 .2626129E+00 .1800000E+02 .3048625E+04
.2626129E+00 .1800000E+02. 0. 0. .5832000E+04 .4727032E+01. 0.
.2626129E+00 .5832000E+04 .1800000E+02 .3048625E+04. 0. 0. .5832000E+04
0. 0. 0. .3810000E+00
CASE NUMBER 294                                GROUP NUMBER 2
.1837117E+01. 0. 0. .1224745E+01 .4824506E+00 .2204541E+02 .3048625E+04
.2626129E+00 .3306811E+02. 0. 0. .5832000E+04 .4727032E+01. 0.
.3216338E+00 .7142712E+04 .1800000E+02 .5600682E+04. 0. 0. .1071407E+05
0. 0. 0. .4100000E+00
CASE NUMBER 295                                GROUP NUMBER 2
.2828427E+01. 0. 0. .1414214E+01 .7427814E+00 .2545584E+02 .3048625E+04
.2626129E+00 .5091169E+02. 0. 0. .5832000E+04 .4727032E+01. 0.
.3713907E+00 .8247693E+04 .1800000E+02 .8522814E+04. 0. 0. .1649539E+05
0. 0. 0. .4418000E+00
CASE NUMBER 296                                GROUP NUMBER 2
.3043189E+01. 0. 0. .1449138E+01 .7991806E+00 .2608448E+02 .3048625E+04
.2626129E+00 .5477740E+02. 0. 0. .5832000E+04 .4727032E+01. 0.
.3805622E+00 .8451371E+04 .1800000E+02 .9277542E+04. 0. 0. .1774788E+05
0. 0. 0. .4490000E+00

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DATA INPUT
CASE NUMBER 297
.3263127E+010. 0. 0. .1483240E+01 .8569392E+00 .2669831E+02 .3048625E+04
.2626129E+00 .5873629E+020. 0. .5832000E+04 .4727032E+010. 0.
.3895178E+00 .8650254E+04 .1800000E+02 .9948052E+040. 0. .1903056E+05
0. 0. 0. .4565000E+00
CASE NUMBER 298
0. 0. .1000000E+030. 0. 0. 0. .3430000E+03
.3779645E+000. .1000000E+050. .5832000E+04 .6803361E+01 .3430000E+07 .3779645E+02
0. 0. .1800000E+020. 0. .3430000E+050. 0.
0. 0. .5832000E+06 .2613000E+00
CASE NUMBER 299
0. 0. .1000000E+03 .7071068E+02 .7071068E+00 .1336306E+00 .1272792E+02 .3430000E+03
.3779645E+00 .6263961E+01 .1000000E+05 .353534E+04 .5832000E+04 .6803361E+01 .3430000E+07 .3779645E+02
.2672612E+00 .4123847E+04 .1800000E+02 .1212688E+03 .6363961E+03 .3430000E+05 .6363961E+05 .2061923E+04
.1272792E+04 .1272792E+06 .5832000E+06 .2780000E+00
CASE NUMBER 300
0. 0. .1000000E+01 .1000000E+03 .1000000E+03 .1000000E+03 .1000000E+01 .3779645E+00 .1800000E+02 .3430000E+03
.3779645E+00 .1800000E+02 .1000000E+05 .1000000E+05 .5832000E+04 .6803361E+01 .3430000E+07 .3779645E+02
.3779645E+00 .5832000E+04 .1800000E+02 .3430000E+03 .1800000E+04 .3430000E+05 .1800000E+06 .5832000E+04
.1800000E+04 .1800000E+06 .5832000E+06 .2955000E+00
CASE NUMBER 301
.1837117E+01 .1837117E+03 .1000000E+03 .1224745E+03 .1224745E+01 .6943651E+00 .2204541E+02 .3430000E+03
.3779645E+00 .3306811E+02 .1000000E+05 .3307117E+05 .5832000E+04 .6803361E+01 .3430000E+07 .3779645E+02
.4629100E+00 .7142712E+04 .1800000E+02 .6301312E+03 .3306811E+04 .3430000E+05 .3306811E+06 .1071407E+05
.2204541E+04 .2204541E+06 .5832000E+06 .3128000E+00
CASE NUMBER 302
.2828427E+01 .2828427E+03 .1000000E+03 .1414214E+03 .1414214E+01 .1069045E+01 .2545584E+02 .3430000E+03
.3779645E+00 .5091169E+02 .1000000E+05 .2828427E+05 .5832000E+04 .6803361E+01 .3430000E+07 .3779645E+02
.5354225E+00 .8247693E+04 .1800000E+02 .9701505E+03 .5091169E+04 .3430000E+05 .5091169E+06 .1649539E+05
.2545584E+04 .2545584E+06 .5832000E+06 .3331000E+00
CASE NUMBER 303
.3555447E+01 .3552847E+03 .1000000E+03 .1581139E+03 .1581139E+01 .1494036E+01 .2848605E+02 .3430000E+03
.3779645E+00 .7115125E+02 .1000000E+05 .3352847E+05 .5832000E+04 .6803361E+01 .3430000E+07 .3779645E+02
.5976143E+00 .8212202E+04 .1800000E+02 .1355827E+04 .7115125E+04 .3430000E+05 .7115125E+06 .2305300E+05
.2846050E+04 .2846050E+06 .5832000E+06 .3547000E+00
CASE NUMBER 304
.5196152E+01 .5196152E+03 .1000000E+03 .1732051E+03 .1732051E+01 .1963361E+01 .3117691E+02 .3430000E+03
.3779645E+00 .9353074E+02 .1000000E+05 .5196152E+05 .5832000E+04 .6803361E+01 .3430000E+07 .3779645E+02
.6546537E+00 .1010132E+05 .1800000E+02 .1782280E+04 .9353074E+04 .3430000E+05 .9353074E+06 .3030336E+05
.3117691E+04 .3117691E+06 .5832000E+06 .3806000E+00

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## TRANSGENERATED

## DATA INPUT

CASE NUMBER 305	GROUP NUMBER 2
.6547900E+01 .6547900E+03 .1000000E+03 .1870825E+03 .1870825E+01 .2474874E+01 .3367482E+02 .3430000E+03	
.3779645E+00 .1178622E+03 .1000000E+05 .6547900E+05 .5832000E+04 .6803361E+01 .3430000E+07 .3779645E+02	
.7071068E+00 .1051067E+05 .1800000E+02 .2245930E+04 .1178622E+05 .3430000E+05 .1178622E+07 .3818736E+05	
.3367492E+04 .3367492E+06 .5832000E+06 .4117000E+00	
CASE NUMBER 306	GROUP NUMBER 2
.6830520E+01 .6830520E+03 .1000000E+03 .1897367E+03 .1897367E+01 .2581694E+01 .3415260E+02 .3430000E+03	
.3779645E+00 .1229494E+03 .1000000E+05 .6830520E+05 .5832000E+04 .6803361E+01 .3430000E+07 .3779645E+02	
.7171372E+00 .1106544E+05 .1800000E+02 .2342868E+04 .1229494E+05 .3430000E+05 .1229494E+07 .3835559E+05	
.3415260E+04 .3415260E+06 .5832000E+06 .4171000E+00	
CASE NUMBER 307	GROUP NUMBER 2
.7117092E+01 .7117092E+03 .1000000E+03 .1923538E+03 .1923538E+01 .2690008E+01 .3462369E+02 .3430000E+03	
.3779645E+00 .1281077E+03 .1000000E+05 .7117092E+05 .5832000E+04 .6803361E+01 .3430000E+07 .3779645E+02	
.7270292E+00 .1121808E+05 .1800000E+02 .2441163E+04 .1281077E+05 .3430000E+05 .1281077E+07 .4150688E+05	
.3462369E+04 .3462369E+06 .5832000E+06 .4230000E+00	
CASE NUMBER 308	GROUP NUMBER 2
.7407564E+01 .7407564E+03 .1000000E+03 .1949359E+03 .1949359E+01 .2799796E+01 .3508846E+02 .3430000E+03	
.3779645E+00 .1333361E+03 .1000000E+05 .7407564E+05 .5832000E+04 .6803361E+01 .3430000E+07 .3779645E+02	
.7367884E+00 .1136866E+05 .1800000E+02 .2540794E+04 .1333361E+05 .3430000E+05 .1333361E+07 .4320091E+05	
.3508846E+04 .3508846E+06 .5832000E+06 .4292000E+00	
CASE NUMBER 309	GROUP NUMBER 2
.7701883E+01 .7701883E+03 .1000000E+03 .1974842E+03 .1974842E+01 .2911038E+01 .3554715E+02 .3430000E+03	
.3779645E+00 .1386339E+03 .1000000E+05 .7701883E+05 .5832000E+04 .6803361E+01 .3430000E+07 .3779645E+02	
.7464200E+00 .1151728E+05 .1800000E+02 .2641746E+04 .1386339E+05 .3430000E+05 .1386339E+07 .4491738E+05	
.3554715E+04 .3554715E+06 .5832000E+06 .4356000E+00	
CASE NUMBER 310	GROUP NUMBER 2
0. 0. .1000000E+030. 0. 0. 0. .7290000E+03	
.3333333E+000. .1000000E+050. .5832000E+04 .6000000E+01 .7290000E+07 .3333333E+02	
0. 0. .1800000E+020. 0. .7290000E+050. 0.	
0. 0. .5832000E+06 .2711000E+00	
CASE NUMBER 311	GROUP NUMBER 2
.3535534E+00 .3535534E+02 .1000000E+03 .7071068E+02 .7071068E+00 .1178511E+00 .1272792E+02 .7290000E+03	
.3333333E+00 .6363961E+01 .1000000E+05 .3535534E+05 .5832000E+04 .6000000E+01 .7290000E+07 .3333333E+02	
.2357023E+00 .4123847E+04 .1800000E+02 .2577404E+03 .6363961E+03 .7290000E+05 .6363961E+05 .2061923E+04	
.1272792E+04 .1272792E+06 .5832000E+06 .2892000E+00	
CASE NUMBER 312	GROUP NUMBER 2
.1000000E+01 .1000000E+03 .1000000E+03 .1000000E+03 .1000000E+01 .3333333E+00 .1800000E+02 .7290000E+03	
.3333333E+00 .1800000E+02 .1000000E+05 .1000000E+05 .5832000E+04 .6000000E+01 .7290000E+07 .3333333E+02	
.3333333E+00 .5832000E+04 .1800000E+02 .7290000E+03 .1800000E+04 .7290000E+05 .1800000E+06 .5832000E+04	
.1800000E+04 .1800000E+06 .5832000E+06 .3076000E+00	

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## TRANSGENERATED

## DATA INPUT

CASE NUMBER 313	GROUP NUMBER 2
.1837117E+01 .1837117E+03 .1000000E+03 .1224745E+03 .1224745E+01 .5123724E+00 .2204541E+02 .7290000E+03	
.3333333E+00 .3306811E+02 .1000000E+05 .1837117E+05 .5832000E+04 .6000000E+01 .7290000E+07 .3333333E+02	
.4082483E+00 .7142712E+04 .1800000E+02 .1339259E+04 .3306811E+04 .7290000E+05 .3306811E+06 .1071407E+05	
.2204541E+04 .2204541E+06 .5832000E+06 .3278000E+00	
CASE NUMBER 314	GROUP NUMBER 2
.2828427E+01 .2828427E+03 .1000000E+03 .1414214E+03 .1414214E+01 .9428090E+00 .2545584E+02 .7290000E+03	
.3333333E+00 .5091169E+02 .1000000E+05 .2828427E+05 .5832000E+04 .6000000E+01 .7290000E+07 .3333333E+02	
.4714045E+00 .8247693E+04 .1800000E+02 .2061923E+04 .5091169E+04 .7290000E+05 .5091169E+06 .1649539E+05	
.2545584E+04 .2545584E+06 .5832000E+06 .3501000E+00	
CASE NUMBER 315	GROUP NUMBER 2
.3952847E+01 .3952847E+03 .1000000E+03 .1581139E+03 .1581139E+01 .1317616E+01 .2846050E+02 .7290000E+03	
.3333333E+00 .7115125E+02 .1000000E+05 .3952847E+05 .5832000E+04 .6000000E+01 .7290000E+07 .3333333E+02	
.5270463E+00 .9221202E+04 .1800000E+02 .2881626E+04 .7115125E+04 .7290000E+05 .7115125E+06 .2305300E+05	
.2846050E+04 .2846050E+06 .5832000E+06 .3763000E+00	
CASE NUMBER 316	GROUP NUMBER 2
.5196152E+01 .5196152E+03 .1000000E+03 .1732051E+03 .1732051E+01 .1732051E+01 .3117691E+02 .7290000E+03	
.3333333E+00 .9353074E+02 .1000000E+05 .5196152E+05 .5832000E+04 .6000000E+01 .7290000E+07 .3333333E+02	
.5773503E+00 .1010132E+05 .1800000E+02 .3787995E+04 .9353074E+04 .7290000E+05 .9353074E+06 .3030396E+05	
.3117691E+04 .3117691E+06 .5832000E+06 .4072000E+00	
CASE NUMBER 317	GROUP NUMBER 2
.5458113E+01 .5458113E+03 .1000000E+03 .1760682E+03 .1760682E+01 .1819371E+01 .3169227E+02 .7290000E+03	
.3333333E+00 .9824604E+02 .1000000E+05 .5458113E+05 .5832000E+04 .6000000E+01 .7290000E+07 .3333333E+02	
.5868939E+00 .1026830E+05 .1800000E+02 .3978865E+04 .9824604E+04 .7290000E+05 .9824604E+06 .3183172E+05	
.3169227E+04 .3169227E+06 .5832000E+06 .4139000E+00	
CASE NUMBER 318	GROUP NUMBER 2
.5724734E+01 .5724734E+03 .1000000E+03 .1788854E+03 .1788854E+01 .1908111E+01 .3218938E+02 .7290000E+03	
.3333333E+00 .1030380E+03 .1000000E+05 .5724734E+05 .5832000E+04 .6000000E+01 .7290000E+07 .3333333E+02	
.5962848E+00 .1043260E+05 .1800000E+02 .4173040E+04 .1030380E+05 .7290000E+05 .1030380E+07 .3338432E+05	
.3219938E+04 .3219938E+06 .5832000E+06 .4212000E+00	
CASE NUMBER 319	GROUP NUMBER 2
.5994748E+01 .5994748E+03 .1000000E+03 .1816590E+03 .1816590E+01 .1998249E+01 .3268862E+02 .7290000E+03	
.3333333E+00 .1079055E+03 .1000000E+05 .5994748E+05 .5832000E+04 .6000000E+01 .7290000E+07 .3333333E+02	
.6055301E+00 .1058435E+05 .1800000E+02 .4370171E+04 .1079055E+05 .7290000E+05 .1079055E+07 .3496137E+05	
.3268862E+04 .3268862E+06 .5832000E+06 .4284000E+00	
CASE NUMBER 320	GROUP NUMBER 2
0. 0. .1000000E+030. 0. 0. 0. .1000000E+04	
.3162278E+000. .1000000E+050. .5832000E+04 .5692100E+01 .1000000E+08 .3162278E+02	
0. 0. .1800000E+020. 0. .1000000E+060. 0.	
0. 0. .5832000E+06 .2745000E+00	



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## DATA INPUT

CASE NUMBER	GROUP NUMBER	2
3535534E+00	3535534E+02	.1000000E+03 .7071068E+02 .7071068E+00 .1118034E+00 .1272792E+02 .1000000E+04
3162278E+00	6363961E+01	.1000000E+05 .3535534E+04 .5832000E+04 .5692100E+01 .1000000E+08 .3162278E+02
2236068E+00	4122847E+04	.1800000E+02 .3535534E+03 .6363961E+03 .1000000E+06 .6363961E+05 .2061923E+04
1272792E+04	1272792E+06	.5832000E+06 .2956000E+00
CASE NUMBER 322	GROUP NUMBER 2	
1000000E+01	1000000E+03	.1000000E+03 .1000000E+00 .1000000E+01 .3162278E+00 .1800000E+02 .1000000E+04
3162278E+00	1800000E+02	.1000000E+05 .1000000E+05 .5832000E+04 .5692100E+01 .1000000E+08 .3162278E+02
3162278E+00	5832000E+04	.1800000E+02 .1000000E+06 .1800000E+04 .1000000E+06 .5832000E+06 .5832000E+04
1800000E+04	1800000E+06	.5832000E+06 .3141000E+00
CASE NUMBER 323	GROUP NUMBER 2	
1837117E+01	1837117E+03	.1000000E+03 .1224745E+03 .1224745E+01 .5809475E+00 .2204541E+02 .1000000E+04
3162278E+00	3306811E+02	.1000000E+05 .1837117E+05 .5832000E+04 .5692100E+01 .1000000E+08 .3162278E+02
3872983E+00	7142712E+04	.1800000E+02 .1837117E+04 .3306811E+04 .1000000E+06 .3306811E+06 .1071407E+05
2204541E+04	2204541E+06	.5832000E+06 .3351000E+00
CASE NUMBER 324	GROUP NUMBER 2	
2828427E+01	2828427E+03	.1000000E+03 .1414214E+03 .1414214E+01 .8944272E+00 .2545584E+02 .1000000E+04
3162278E+00	5091169E+02	.1000000E+05 .2828427E+05 .5832000E+04 .5692100E+01 .1000000E+08 .3162278E+02
4472136E+00	8247693E+04	.1800000E+02 .2828427E+04 .5091169E+04 .1000000E+06 .5091169E+06 .1649539E+05
2545584E+04	2545584E+06	.5832000E+06 .3590000E+00
CASE NUMBER 325	GROUP NUMBER 2	
3952847E+01	3952847E+03	.1000000E+03 .1581139E+03 .1581139E+01 .1250000E+01 .2846050E+02 .1000000E+04
3162278E+00	7115125E+02	.1000000E+05 .3952847E+05 .5832000E+04 .5692100E+01 .1000000E+08 .3162278E+02
5000000E+00	9221202E+04	.1800000E+02 .3952847E+04 .7115125E+04 .1000000E+06 .7115125E+06 .2305300E+05
2846050E+04	2846050E+06	.5832000E+06 .3874000E+00
CASE NUMBER 326	GROUP NUMBER 2	
4192374E+01	4192374E+03	.1000000E+03 .1612452E+03 .1612452E+01 .1325745E+01 .2902413E+02 .1000000E+04
3162278E+00	7546273E+02	.1000000E+05 .4192374E+05 .5832000E+04 .5692100E+01 .1000000E+08 .3162278E+02
5099020E+00	9403817E+04	.1800000E+02 .4192374E+04 .7546273E+04 .1000000E+06 .7546273E+06 .2444993E+05
2902413E+04	2902413E+06	.5832000E+06 .3936000E+00
CASE NUMBER 327	GROUP NUMBER 2	
4436553E+01	4436553E+03	.1000000E+03 .1643168E+03 .1643168E+01 .1402961E+01 .2957702E+02 .1000000E+04
3162278E+00	7985795E+02	.1000000E+05 .4436553E+05 .5832000E+04 .5692100E+01 .1000000E+08 .3162278E+02
5385165E+00	9931538E+04	.1800000E+02 .4436553E+04 .7985795E+04 .1000000E+06 .7985795E+06 .2587398E+05
2957702E+04	2957702E+06	.5832000E+06 .4000000E+00
CASE NUMBER 328	GROUP NUMBER 2	
4685296E+01	4685296E+03	.1000000E+03 .1673320E+03 .1673320E+01 .1481621E+01 .3011976E+02 .1000000E+04
3162278E+00	8432533E+02	.1000000E+05 .4685296E+05 .5832000E+04 .5692100E+01 .1000000E+08 .3162278E+02
5291503E+00	9758803E+04	.1800000E+02 .4685296E+04 .8432533E+04 .1000000E+06 .8432533E+06 .2732465E+05
3011976E+04	3011976E+06	.5832000E+06 .4066000E+00

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## TRANSGENERATED

## DATA INPUT

CASE NUMBER	GROUP NUMBER	2
4938522E+01	4938522E+03	.1000000E+03 .1702939E+03 .1702939E+01 .1561698E+01 .3065290E+02 .1000000E+04
3162278E+00	8889340E+02	.1000000E+05 .4938522E+05 .5832000E+04 .5692100E+01 .1000000E+08 .3162278E+02
5385165E+00	9931538E+04	.1800000E+02 .4938522E+04 .8889340E+04 .1000000E+06 .8889340E+06 .2880146E+05
3065290E+04	3065290E+06	.5832000E+06 .4135000E+00
CASE NUMBER 330	GROUP NUMBER 2	
5196152E+01	5196152E+03	.1000000E+03 .1732051E+03 .1732051E+01 .1643168E+01 .3117691E+02 .1000000E+04
3162278E+00	9353074E+02	.1000000E+05 .5196152E+05 .5832000E+04 .5692100E+01 .1000000E+08 .3162278E+02
5477226E+00	1010132E+04	.1800000E+02 .5196152E+04 .9353074E+04 .1000000E+06 .9353074E+06 .3030396E+05
3117691E+04	3117691E+06	.5832000E+06 .4205000E+00
CASE NUMBER 331	GROUP NUMBER 2	
0.	0.	.1000000E+030. 0. 0. 0. 1728000E+04
2886751E+00	0.	.1000000E+050. 0. 0. 0. 1728000E+08 .2886751E+02
0.	0.	.1800000E+020. 0. 0. 0. 1728000E+060. 0.
0.	0.	.5832000E+06 .2825000E+00
CASE NUMBER 332	GROUP NUMBER 2	
3535534E+00	3535534E+02	.1000000E+03 .7071068E+02 .7071068E+00 .1020621E+00 .1272792E+02 .1728000E+04
2886751E+00	6363961E+01	.1000000E+05 .3535534E+04 .5832000E+04 .5196152E+01 .1728000E+08 .2886751E+02
2041241E+00	4123847E+04	.1800000E+02 .6109403E+03 .6363961E+03 .1728000E+06 .6363961E+05 .2061923E+04
1272792E+04	1272792E+06	.5832000E+06 .3044000E+00
CASE NUMBER 333	GROUP NUMBER 2	
1000000E+01	1000000E+03	.1000000E+03 .1000000E+00 .1000000E+01 .2886751E+00 .1800000E+02 .1728000E+04
2886751E+00	1800000E+02	.1000000E+05 .1000000E+05 .5832000E+04 .5196152E+01 .1728000E+08 .2886751E+02
2886751E+00	5832000E+04	.1800000E+02 .1728000E+04 .1800000E+04 .1728000E+06 .1800000E+06 .5832000E+04
1800000E+04	1800000E+06	.5832000E+06 .3265000E+00
CASE NUMBER 334	GROUP NUMBER 2	
1837117E+01	1837117E+03	.1000000E+03 .1224745E+03 .1224745E+01 .5303301E+00 .2204541E+02 .1728000E+04
2886751E+00	3306811E+02	.1000000E+05 .1837117E+05 .5832000E+04 .5196152E+01 .1728000E+08 .2886751E+02
3535534E+00	7142712E+04	.1800000E+02 .3174539E+04 .3306811E+04 .1728000E+06 .3306811E+06 .1071407E+05
2204541E+04	2204541E+06	.5832000E+06 .3499000E+00
CASE NUMBER 335	GROUP NUMBER 2	
2828427E+01	2828427E+03	.1000000E+03 .1414214E+03 .1414214E+01 .8164966E+00 .2545584E+02 .1728000E+04
2886751E+00	5091169E+02	.1000000E+05 .2828427E+05 .5832000E+04 .5196152E+01 .1728000E+08 .2886751E+02
4082483E+00	8247693E+04	.1800000E+02 .4887522E+04 .5091169E+04 .1728000E+06 .5091169E+06 .1649539E+05
2545584E+04	2545584E+06	.5832000E+06 .3773000E+00
CASE NUMBER 336	GROUP NUMBER 2	
3043189E+01	3043189E+03	.1000000E+03 .1449138E+03 .1449138E+01 .8784930E+00 .2608448E+02 .1728000E+04
2886751E+00	5477740E+02	.1000000E+05 .3043189E+05 .5832000E+04 .5196152E+01 .1728000E+08 .2886751E+02
4183300E+00	8451371E+04	.1800000E+02 .5258631E+04 .5477740E+04 .1728000E+06 .5477740E+06 .1774788E+05
2608448E+04	2608448E+06	.5832000E+06 .3833000E+00

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## TRANSGENERATED

## DATA INPUT

CASE NUMBER	337	GROUP NUMBER	2
.3263127E+01	.3263127E+03	.1000000E+03	.1483240E+03
.2886751E+00	.5873629E+02	.1000000E+05	.3263127E+05
.4281744E+00	.8650254E+04	.1800000E+02	.5638684E+04
.2669831E+04	.2669831E+06	.5832000E+06	.3895000E+00
CASE NUMBER	338	GROUP NUMBER	2
.3488123E+01	.3488123E+03	.1000000E+03	.1516575E+03
.2886751E+00	.6278521E+02	.1000000E+05	.3488123E+05
.4377975E+00	.8844666E+04	.1800000E+02	.6027476E+04
.2729835E+04	.2729835E+06	.5832000E+06	.3959000E+00
CASE NUMBER	339	GROUP NUMBER	2
.3718064E+01	.3718064E+03	.1000000E+03	.1549193E+03
.2886751E+00	.6692515E+02	.1000000E+05	.3718064E+05
.4472136E+00	.9034898E+04	.1800000E+02	.6424815E+04
.2788548E+04	.2788548E+06	.5832000E+06	.4026000E+00
CASE NUMBER	340	GROUP NUMBER	2
.3952847E+01	.3952847E+03	.1000000E+03	.1581139E+03
.2886751E+00	.7115125E+02	.1000000E+05	.3952847E+05
.4564355E+00	.9221202E+04	.1800000E+02	.6830520E+04
.2846050E+04	.2846050E+06	.5832000E+06	.4095000E+00
CASE NUMBER	341	GROUP NUMBER	2
.0.	.0.	.1000000E+030.	.0.
.2626129E+000.	.0.	.1000000E+050.	.5832000E+04
.0.	.0.	.1800000E+020.	.4727032E+01
.0.	.0.	.5832000E+06	.3048625E+08
CASE NUMBER	342	GROUP NUMBER	2
.353534E+00	.353534E+02	.1000000E+03	.7071068E+02
.2626129E+00	.6363961E+01	.1000000E+05	.353534E+04
.1856953E+00	.4123847E+04	.1800000E+02	.1077852E+04
.1272792E+04	.1272792E+06	.5832000E+06	.3172000E+00
CASE NUMBER	343	GROUP NUMBER	2
.1000000E+01	.1000000E+03	.1000000E+03	.1000000E+03
.2626129E+00	.1800000E+02	.1000000E+05	.1000000E+05
.2626129E+00	.5832000E+02	.1800000E+02	.3048625E+04
.1800000E+04	.1800000E+06	.5832000E+06	.3424000E+00
CASE NUMBER	344	GROUP NUMBER	2
.1837117E+01	.1837117E+03	.1000000E+03	.1224745E+03
.2626129E+00	.3306811E+02	.1000000E+05	.1837117E+05
.3216338E+00	.7142712E+04	.1800000E+02	.5600682E+04
.2204541E+04	.2204541E+06	.5832000E+06	.3691000E+00

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## TRANSGENERATED

## DATA INPUT

CASE NUMBER	345	GROUP NUMBER	2
.2023858E+01	.2023858E+03	.1000000E+03	.1264911E+03
.2626129E+00	.3642944E+02	.1000000E+05	.2023858E+05
.3321819E+00	.7376961E+04	.1800000E+02	.6169983E+04
.2276840E+04	.2276840E+06	.5832000E+06	.3750000E+00
CASE NUMBER	346	GROUP NUMBER	2
.2216529E+01	.2216529E+03	.1000000E+03	.1303840E+03
.2626129E+00	.3989752E+02	.1000000E+05	.2216529E+05
.3424053E+00	.7603998E+04	.1800000E+02	.6757365E+04
.2346913E+04	.2346913E+06	.5832000E+06	.3811000E+00
CASE NUMBER	347	GROUP NUMBER	2
.2414953E+01	.2414953E+03	.1000000E+03	.1341641E+03
.2626129E+00	.4346916E+02	.1000000E+05	.2414953E+05
.3523321E+00	.7824449E+04	.1800000E+02	.7362287E+04
.2414953E+04	.2414953E+06	.5832000E+06	.3873000E+00
CASE NUMBER	348	GROUP NUMBER	2
.2618969E+01	.2618969E+03	.1000000E+03	.1378405E+03
.2626129E+00	.4714145E+02	.1000000E+05	.2618969E+05
.3619869E+00	.8038857E+04	.1800000E+02	.7984255E+04
.2481129E+04	.2481129E+06	.5832000E+06	.3937000E+00
CASE NUMBER	349	GROUP NUMBER	2
.0.	.0.	.2000000E+030.	.0.
.3779645E+000.	.0.	.4000000E+050.	.5832000E+04
.0.	.0.	.1800000E+020.	.6803361E+01
.0.	.0.	.1166400E+07	.8860000E+050.
CASE NUMBER	350	GROUP NUMBER	2
.353534E+00	.7071068E+02	.2000000E+03	.1414214E+03
.3779645E+00	.6363961E+01	.4000000E+05	.1414214E+05
.2672612E+00	.4123847E+04	.1800000E+02	.1212688E+03
.2545844E+04	.5091169E+06	.1166400E+07	.2555000E+00
CASE NUMBER	351	GROUP NUMBER	2
.1000000E+01	.2000000E+03	.2000000E+03	.2000000E+03
.3779645E+00	.1800000E+02	.4000000E+05	.4000000E+05
.3779645E+00	.5832000E+02	.1800000E+02	.3430000E+03
.3600000E+04	.7200000E+06	.1166400E+07	.2705000E+00
CASE NUMBER	352	GROUP NUMBER	2
.1837117E+01	.3674235E+03	.2000000E+03	.2449490E+03
.3779645E+00	.3306811E+02	.4000000E+05	.7348469E+05
.4629100E+00	.7142712E+04	.1800000E+02	.6301312E+03
.4409082E+04	.8818163E+06	.1166400E+07	.2863000E+00

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CASE NUMBER	353	GROUP NUMBER	2
.2828427E+01	.5656854E+03	.2000000E+03	.2828427E+03
.3779645E+00	.5091169E+02	.4000000E+05	.1131371E+06
.5345225E+00	.8247693E+04	.1800000E+02	.9701505E+03
.5091169E+04	.1018234E+07	.1166400E+07	.3042000E+00
CASE NUMBER	354	GROUP NUMBER	2
.3952847E+01	.7905694E+03	.2000000E+03	.3162278E+03
.3779645E+00	.7115125E+02	.4000000E+05	.1581139E+06
.5976143E+00	.9221202E+04	.1800000E+02	.1355827E+04
.5692100E+04	.1138420E+07	.1166400E+07	.3253000E+00
CASE NUMBER	355	GROUP NUMBER	2
.5196152E+01	.1039230E+04	.2000000E+03	.3464102E+03
.3779645E+00	.9353074E+02	.4000000E+05	.2078461E+06
.6546537E+00	.1010132E+05	.1800000E+02	.1782280E+04
.6235383E+04	.1247077E+07	.1166400E+07	.3506000E+00
CASE NUMBER	356	GROUP NUMBER	2
.6547900E+01	.1309580E+04	.2000000E+03	.3741657E+03
.3779645E+00	.1178622E+03	.4000000E+05	.2619160E+06
.7071068E+00	.1091067E+05	.1800000E+02	.2245930E+04
.6734983E+04	.1346997E+07	.1166400E+07	.3797000E+00
CASE NUMBER	357	GROUP NUMBER	2
.6830520E+01	.1366104E+04	.2000000E+03	.3794733E+03
.3779645E+00	.1229494E+03	.4000000E+05	.2732208E+06
.7171372E+00	.1106544E+05	.1800000E+02	.2342868E+04
.6830520E+04	.1366104E+07	.1166400E+07	.3849000E+00
CASE NUMBER	358	GROUP NUMBER	2
.7171092E+01	.1423418E+04	.2000000E+03	.3847077E+03
.3779645E+00	.1281077E+03	.4000000E+05	.2846837E+06
.7270292E+00	.1121808E+05	.1800000E+02	.2441163E+04
.6924738E+04	.1384948E+07	.1166400E+07	.3905000E+00
CASE NUMBER	359	GROUP NUMBER	2
.0.	.0.	.2000000E+030.	.0.
.3333333E+000.	.0.	.4000000E+050.	.5832000E+04
.0.	.0.	.1800000E+020.	.6000000E+01
.0.	.0.	.1166400E+07	.1458000E+060.
CASE NUMBER	360	GROUP NUMBER	2
.3535534E+00	.7071068E+02	.2000000E+03	.1414214E+03
.3333333E+00	.6363961E+01	.4000000E+05	.1414214E+05
.2357023E+00	.4123847E+04	.1800000E+02	.2577404E+03
.2545584E+04	.5091169E+06	.1166400E+07	.2651000E+00

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CASE NUMBER	361	GROUP NUMBER	2
.1000000E+01	.2000000E+03	.2000000E+03	.1000000E+01
.3333333E+00	.1800000E+02	.4000000E+05	.5832000E+04
.3333333E+00	.5832000E+04	.7200000E+06	.3600000E+04
.3600000E+04	.7200000E+06	.1166400E+07	.2819000E+00
CASE NUMBER	362	GROUP NUMBER	2
.1837117E+01	.3674235E+03	.2000000E+03	.2449490E+03
.3333333E+00	.3306811E+02	.4000000E+05	.7348469E+05
.4082483E+00	.7142712E+04	.1800000E+02	.1339259E+04
.4409082E+04	.8818163E+06	.1166400E+07	.3009000E+00
CASE NUMBER	363	GROUP NUMBER	2
.2828427E+01	.5656854E+03	.2000000E+03	.2828427E+03
.3333333E+00	.5091169E+02	.4000000E+05	.1131371E+06
.4714045E+00	.8247693E+04	.1800000E+02	.9701505E+03
.5091169E+04	.1018234E+07	.1166400E+07	.3042000E+00
CASE NUMBER	364	GROUP NUMBER	2
.3952847E+01	.7905694E+03	.2000000E+03	.3162278E+03
.3333333E+00	.7115125E+02	.4000000E+05	.1581139E+06
.5270463E+00	.9221202E+04	.1800000E+02	.1355827E+04
.5692100E+04	.1138420E+07	.1166400E+07	.3253000E+00
CASE NUMBER	365	GROUP NUMBER	2
.5196152E+01	.1039230E+04	.2000000E+03	.3464102E+03
.3333333E+00	.9353074E+02	.4000000E+05	.2078461E+06
.5773503E+00	.1010132E+05	.1800000E+02	.1782280E+04
.6235383E+04	.1247077E+07	.1166400E+07	.3506000E+00
CASE NUMBER	366	GROUP NUMBER	2
.5458113E+01	.1091623E+04	.2000000E+03	.3521363E+03
.3333333E+00	.9824604E+02	.4000000E+05	.2183245E+06
.5868939E+00	.1026830E+05	.1800000E+02	.3978965E+04
.6338454E+04	.1267691E+07	.1166400E+07	.3824000E+00
CASE NUMBER	367	GROUP NUMBER	2
.0.	.0.	.2000000E+030.	.0.
.3162278E+000.	.0.	.4000000E+050.	.5832000E+04
.0.	.0.	.1800000E+020.	.6000000E+01
.0.	.0.	.1166400E+07	.1458000E+060.
CASE NUMBER	368	GROUP NUMBER	2
.3535534E+00	.7071068E+02	.2000000E+03	.1414214E+03
.3162278E+00	.6363961E+01	.4000000E+05	.1414214E+05
.2236068E+00	.4123847E+04	.1800000E+02	.2577404E+03
.2545584E+04	.5091169E+06	.1166400E+07	.2701000E+00

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CASE NUMBER	369	GROUP NUMBER	2
.1000000E+01	.2000000E+03	.2000000E+03	.1000000E+01
.3162278E+00	.1800000E+02	.4000000E+05	.5832000E+04
.3162278E+00	.5832000E+04	.1800000E+02	.3600000E+04
.3600000E+04	.7200000E+06	.1166400E+07	.2881000E+00
CASE NUMBER	370	GROUP NUMBER	2
.1837117E+01	.3674235E+03	.2000000E+03	.2449490E+03
.3162278E+00	.306811E+02	.4000000E+05	.7348469E+05
.3872983E+00	.7142712E+04	.1800000E+02	.1837117E+04
.4409082E+04	.8818163E+06	.1166400E+07	.3087000E+00
CASE NUMBER	371	GROUP NUMBER	2
.2828427E+01	.5656854E+03	.2000000E+03	.2828427E+03
.3162278E+00	.5091169E+02	.4000000E+05	.1131371E+06
.4472136E+00	.8247693E+04	.1800000E+02	.2828427E+04
.5091169E+04	.1018234E+07	.1166400E+07	.3223000E+00
CASE NUMBER	372	GROUP NUMBER	2
.3952847E+01	.7905694E+03	.2000000E+03	.3162278E+03
.3162278E+00	.7115125E+02	.4000000E+05	.1581139E+06
.5090000E+00	.9221202E+04	.1800000E+02	.3952847E+04
.5692100E+04	.1138420E+07	.1166400E+07	.3576000E+00
CASE NUMBER	373	GROUP NUMBER	2
.4192374E+01	.8384748E+03	.2000000E+03	.3224903E+03
.3162278E+00	.7546273E+02	.4000000E+05	.1676950E+06
.5099020E+00	.9403817E+04	.1800000E+02	.4192374E+04
.5804826E+04	.1160965E+07	.1166400E+07	.3634000E+00
CASE NUMBER	374	GROUP NUMBER	2
.4436553E+01	.8873105E+03	.2000000E+03	.3286335E+03
.3162278E+00	.7985795E+02	.4000000E+05	.1774821E+06
.5196152E+00	.9582954E+04	.1800000E+02	.4436553E+04
.5915404E+04	.1183081E+07	.1166400E+07	.3694000E+00
CASE NUMBER	375	GROUP NUMBER	2
.4685296E+01	.9370592E+03	.2000000E+03	.3346640E+03
.3162278E+00	.8433533E+02	.4000000E+05	.1874118E+06
.5291503E+00	.9758803E+04	.1800000E+02	.4685296E+04
.6023952E+04	.1204790E+07	.1166400E+07	.3756000E+00
CASE NUMBER	376	GROUP NUMBER	2
0.	0.	.2000000E+030.	0.
.2886751E+000.	0.	.4000000E+050.	.5832000E+04
0.	0.	.1800000E+020.	.5196152E+01
0.	0.	.1166400E+07	.3456000E+060.

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CASE NUMBER	377	GROUP NUMBER	2
.3535534E+00	.7071068E+02	.2000000E+03	.1414214E+03
.2886751E+00	.6363961E+01	.4000000E+05	.5832000E+04
.2041241E+00	.4123847E+04	.1800000E+02	.6109403E+03
.2545584E+04	.5091169E+06	.1166400E+07	.2807000E+00
CASE NUMBER	378	GROUP NUMBER	2
.1000000E+01	.2000000E+03	.2000000E+03	.2000000E+03
.2886751E+00	.1800000E+02	.4000000E+05	.5832000E+04
.2886751E+00	.5832000E+04	.1800000E+02	.1728000E+04
.3600000E+04	.7200000E+06	.1166400E+07	.3012000E+00
CASE NUMBER	379	GROUP NUMBER	2
.1837117E+01	.3674235E+03	.2000000E+03	.2449490E+03
.2886751E+00	.306811E+02	.4000000E+05	.7348469E+05
.3535534E+00	.7142712E+04	.1800000E+02	.3174539E+04
.4409082E+04	.8818163E+06	.1166400E+07	.3238000E+00
CASE NUMBER	380	GROUP NUMBER	2
.2828427E+01	.5656854E+03	.2000000E+03	.2828427E+03
.2886751E+00	.5091169E+02	.4000000E+05	.1131371E+06
.4082483E+00	.8247693E+04	.1800000E+02	.4887522E+04
.5091169E+04	.1018234E+07	.1166400E+07	.3490000E+00
CASE NUMBER	381	GROUP NUMBER	2
.3043189E+01	.6086378E+03	.2000000E+03	.2898275E+03
.2886751E+00	.5477740E+02	.4000000E+05	.1217276E+06
.4183300E+00	.8451371E+04	.1800000E+02	.5258631E+04
.5216896E+04	.1043379E+07	.1166400E+07	.3545000E+00
CASE NUMBER	382	GROUP NUMBER	2
.3263127E+01	.6526255E+03	.2000000E+03	.2966479E+03
.2886751E+00	.5873629E+02	.4000000E+05	.1305251E+06
.4291744E+00	.8650254E+04	.1800000E+02	.5638684E+04
.5339663E+04	.1067933E+07	.1166400E+07	.3602000E+00
CASE NUMBER	383	GROUP NUMBER	2
0.	0.	.2000000E+030.	0.
.2626129E+000.	0.	.4000000E+050.	.5832000E+04
0.	0.	.1800000E+020.	.6097250E+060.
0.	0.	.1166400E+07	.2737000E+00
CASE NUMBER	384	GROUP NUMBER	2
.3535534E+00	.7071068E+02	.2000000E+03	.1414214E+03
.2626129E+00	.6363961E+01	.4000000E+05	.5832000E+04
.1866953E+00	.4123847E+04	.1800000E+02	.1077852E+04
.2545584E+04	.5091169E+06	.1166400E+07	.2967000E+00

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CASE NUMBER	385	GROUP NUMBER	2
1000000E+01	2000000E+03	2000000E+03	1000000E+01
2626129E+00	1800000E+02	4000000E+05	5832000E+04
2626129E+00	5832000E+04	1800000E+02	3048625E+04
3600000E+04	7200000E+06	1166400E+07	3173000E+00
CASE NUMBER	386	GROUP NUMBER	2
1837117E+01	3674235E+03	2000000E+03	2449490E+03
2626129E+00	3306811E+02	4000000E+05	7348469E+05
3216338E+00	7142712E+04	1800000E+02	5600682E+04
4409082E+04	8818163E+06	1166400E+07	3419000E+00
CASE NUMBER	387	GROUP NUMBER	2
2023858E+01	4047715E+03	2000000E+03	2529822E+03
2626129E+00	3642944E+02	4000000E+05	8095431E+05
3321819E+00	7376961E+04	1800000E+02	6169983E+04
4553680E+04	9107360E+06	1166400E+07	3475000E+00
CASE NUMBER	388	GROUP NUMBER	2
0.	0.	0.	0.
3779645E+00	2500000E+04	4665600E+05	1360672E+02
0.	0.	0.	0.
0.	0.	0.	0.
CASE NUMBER	389	GROUP NUMBER	2
3535534E+00	1767767E+02	5000000E+02	3535534E+02
3779645E+00	1272792E+02	2500000E+04	8838835E+03
2672612E+00	3299077E+05	3600000E+02	1212688E+03
1272792E+04	6363961E+05	2332800E+07	3129000E+00
CASE NUMBER	390	GROUP NUMBER	2
1000000E+01	5000000E+02	5000000E+02	1000000E+01
3779645E+00	3600000E+02	2500000E+04	2500000E+04
3779645E+00	4665600E+05	3600000E+02	3430000E+03
1800000E+04	9000000E+05	2332800E+07	3347000E+00
CASE NUMBER	391	GROUP NUMBER	2
1925290E+01	9626448E+02	5000000E+02	6220167E+02
3779645E+00	6931043E+02	2500000E+04	4813224E+04
4702004E+00	5804162E+05	3600000E+02	6603744E+03
2239260E+04	1119630E+06	2332800E+07	3605000E+00
CASE NUMBER	392	GROUP NUMBER	2
2828427E+01	1414214E+03	5000000E+02	7071068E+02
3779645E+00	1018234E+03	2500000E+04	7071068E+04
5345255E+00	6598155E+05	3600000E+02	9701505E+03
2545584E+04	1272792E+06	2332800E+07	3864000E+00

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CASE NUMBER	393	GROUP NUMBER	2
3952847E+01	1976424E+03	5000000E+02	7905694E+02
3779645E+00	1423025E+03	2500000E+04	9882118E+04
5976143E+00	7376961E+05	3600000E+02	1355827E+04
2846050E+04	1423025E+06	2332800E+07	4193000E+00
CASE NUMBER	394	GROUP NUMBER	2
5196152E+01	2598076E+03	5000000E+02	8660254E+02
3779645E+00	1870615E+03	2500000E+04	1299038E+05
6546537E+00	8081056E+05	3600000E+02	1782280E+04
3117691E+04	1558846E+06	2332800E+07	4488000E+00
CASE NUMBER	395	GROUP NUMBER	2
6547900E+01	3273950E+03	5000000E+02	9354143E+02
3779645E+00	2257244E+03	2500000E+04	1636975E+05
7071068E+00	8728538E+05	3600000E+02	2245930E+04
3367492E+04	1683746E+06	2332800E+07	4844000E+00
CASE NUMBER	396	GROUP NUMBER	2
8000000E+01	4000000E+03	5000000E+02	1000000E+03
3779645E+00	2880000E+03	2500000E+04	2000000E+05
7559289E+00	9331200E+05	3600000E+02	2744000E+04
3600000E+04	1800000E+06	2332800E+07	5174000E+00
CASE NUMBER	397	GROUP NUMBER	2
8301867E+01	4150934E+03	5000000E+02	1012423E+03
3779645E+00	2988672E+03	2500000E+04	2075467E+05
7653197E+00	9447120E+05	3600000E+02	2847540E+04
3644722E+04	1822361E+06	2332800E+07	5285000E+00
CASE NUMBER	398	GROUP NUMBER	2
8607439E+01	4303719E+03	5000000E+02	1024695E+03
3779645E+00	3098678E+03	2500000E+04	2151860E+05
7745967E+00	9561635E+05	3600000E+02	2952351E+04
3888902E+04	1844451E+06	2332800E+07	5401000E+00
CASE NUMBER	399	GROUP NUMBER	2
0.	0.	0.	0.
3333333E+00	2500000E+04	4665600E+05	1200000E+02
0.	0.	0.	0.
0.	0.	0.	0.
CASE NUMBER	400	GROUP NUMBER	2
3535534E+00	1767767E+02	5000000E+02	3535534E+02
3333333E+00	1272792E+02	2500000E+04	8838835E+03
2357023E+00	3299077E+05	3600000E+02	1257740E+03
1272792E+04	6363961E+05	2332800E+07	3281000E+00

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## DATA INPUT

CASE NUMBER	GROUP NUMBER
401	2
1000000E+01	3333333E+00
3333333E+00	3600000E+02
3333333E+00	4665600E+05
1800000E+04	9000000E+05
402	2
1837117E+01	9185587E+02
3333333E+00	6613622E+02
4082483E+00	5714170E+05
2204541E+04	1102270E+06
403	2
2828427E+01	1414214E+03
3333333E+00	1018234E+03
4714045E+00	6598155E+05
2545584E+04	1272792E+06
404	2
3952847E+01	1876424E+03
3333333E+00	1423025E+03
5270463E+00	7376961E+05
2846050E+04	1423025E+06
405	2
5196152E+01	2598076E+03
3333333E+00	1870615E+03
5773503E+00	8081056E+05
3117691E+04	1558846E+06
406	2
6547900E+01	3273950E+03
3333333E+00	2357244E+03
6236096E+00	8728538E+05
3367492E+04	1683746E+06
407	2
6830520E+01	3415260E+03
3333333E+00	2458987E+03
6324555E+00	8852354E+05
3415260E+04	1707630E+06
408	2
0	0
3162278E+00	0
0	0
0	0

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CASE NUMBER	GROUP NUMBER
409	2
3535534E+00	1767767E+02
3162278E+00	1272792E+02
2236068E+00	3289077E+05
1272792E+04	6363961E+05
410	2
1000000E+01	5000000E+02
3162278E+00	3600000E+02
3162278E+00	4665600E+05
1800000E+04	9000000E+05
411	2
1837117E+01	9185587E+02
3162278E+00	6613622E+02
3872983E+00	5714170E+05
2204541E+04	1102270E+06
412	2
2778070E+01	1389035E+03
3162278E+00	1000105E+03
4445436E+00	6558763E+05
2530387E+04	1265193E+06
413	2
3952847E+01	1876424E+03
3162278E+00	1423025E+03
5000000E+00	7376961E+05
2846050E+04	1423025E+06
414	2
5196152E+01	2598076E+03
3162278E+00	1870615E+03
5477226E+00	8081056E+05
3117691E+04	1558846E+06
415	2
5458113E+01	2729057E+03
3162278E+00	1964921E+03
5567764E+00	8214636E+05
3159227E+04	1584614E+06
416	2
5724334E+01	2862167E+03
3162278E+00	2060760E+03
5656854E+00	8346079E+05
3219938E+04	1609969E+06

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## TRANSGENERATED

## DATA INPUT

CASE NUMBER 417 GROUP NUMBER 2  
.5994748E+01-.2997374E+03-.5000000E+02-.9082951E+02 .1816590E+01 .1895706E+01 .6539725E+02 .1000000E+04  
.3162278E+00 .2158109E+03 .2500000E+04 .1498687E+05 .4665600E+05 .1138420E+02 .2500000E+07-.1581139E+02  
.5744563E+00 .8475483E+05 .3600000E+02 .5954748E+04-.1079055E+05-.5000000E+05 .5395273E+06 .2796909E+06  
- .3269862E+04 .1634931E+06-.2332800E+07 .5232000E+00  
CASE NUMBER 418 GROUP NUMBER 2  
.6269290E+01-.3134645E+03-.5000000E+02-.9219544E+02 .1843909E+01 .1982524E+01 .6638072E+02 .1000000E+04  
.3162278E+00 .2256944E+03 .2500000E+04 .1567323E+05 .4665600E+05 .1138420E+02 .2500000E+07-.1581139E+02  
.5830952E+00 .8602941E+05 .3600000E+02 .6269290E+04-.1128472E+05-.5000000E+05 .5642361E+06 .2925000E+06  
- .3319036E+04 .1659518E+06-.2332800E+07 .5332000E+00  
CASE NUMBER 419 GROUP NUMBER 2  
0. 0. -.5000000E+020. 0. 0. 0. 0. 0. 1728000E+04  
.2886751E+000. .2500000E+040. .4665600E+05 .1039230E+02 .4320000E+07-.1443376E+02  
0. 0. .3600000E+020. 0. -.8640000E+050. 0.  
0. 0. -.2332800E+07 .3263000E+00  
CASE NUMBER 420 GROUP NUMBER 2  
.3535534E+00-.1767767E+02-.5000000E+02-.3535534E+02 .7071068E+00 .1020621E+00 .2545584E+02 .1728000E+04  
.2886751E+00 .1272792E+02 .2500000E+04 .8838835E+03 .4665600E+05 .1039230E+02 .4320000E+07-.1443376E+02  
.2041241E+00 .3299077E+05 .3600000E+02 .6109403E+03-.6363961E+03-.8640000E+05 .3181981E+05 .1649539E+05  
- .1272792E+04 .6363961E+05-.2332800E+07 .3538000E+00  
CASE NUMBER 421 GROUP NUMBER 2  
.1000000E+01-.5000000E+02-.5000000E+02-.5000000E+02 .1000000E+01 .2886751E+00 .3600000E+02 .1728000E+04  
.2886751E+00 .3600000E+02 .2500000E+04 .2500000E+04 .4665600E+05 .1039230E+02 .4320000E+07-.1443376E+02  
.2886751E+00 .4665600E+05 .3600000E+02 .1728000E+04-.1800000E+04-.8640000E+05 .9000000E+05 .4665600E+05  
- .1800000E+04 .9000000E+05-.2332800E+07 .3820000E+00  
CASE NUMBER 422 GROUP NUMBER 2  
.1837117E+01-.9185587E+02-.5000000E+02-.6123724E+02 .1224745E+01 .5303301E+00 .4409082E+02 .1728000E+04  
.2886751E+00 .6613622E+02 .2500000E+04 .4592793E+04 .4665600E+05 .1039230E+02 .4320000E+07-.1443376E+02  
.3535534E+00 .5714170E+05 .3600000E+02 .3174539E+04-.3306811E+04-.8640000E+05 .1653406E+06 .8571255E+05  
- .2204541E+04 .1102270E+06-.2332800E+07 .4092000E+00  
CASE NUMBER 423 GROUP NUMBER 2  
.2828427E+01-.1414214E+03-.5000000E+02-.7071068E+02 .1414214E+01 .8164866E+00 .5091169E+02 .1728000E+04  
.2886751E+00 .1018234E+03 .2500000E+04 .7071068E+04 .4665600E+05 .1039230E+02 .4320000E+07-.1443376E+02  
.4082483E+00 .6598155E+05 .3600000E+02 .7244422E+04-.5091169E+04-.8640000E+05 .2545584E+06 .1319631E+06  
- .2545584E+04 .1272792E+06-.2332800E+07 .4405000E+00  
CASE NUMBER 424 GROUP NUMBER 2  
.3952847E+01-.1978424E+03-.5000000E+02-.7905694E+02 .1581139E+01 .1141089E+01 .5692100E+02 .1728000E+04  
.2886751E+00 .1423025E+03 .2500000E+04 .9882118E+04 .4665600E+05 .1039230E+02 .4320000E+07-.1443376E+02  
.4564055E+00 .7376961E+05 .3600000E+02 .6830520E+04-.7115125E+04-.8640000E+05 .3557562E+06 .1844240E+06  
- .2846050E+04 .1423025E+06-.2332800E+07 .4796000E+00

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## DATA INPUT

CASE NUMBER 425 GROUP NUMBER 2  
.4192374E+01-.2096187E+03-.5000000E+02-.8062258E+02 .1612452E+01 .1210234E+01 .5804826E+02 .1728000E+04  
.2886751E+00 .1509255E+03 .2500000E+04 .1048094E+05 .4665600E+05 .1039230E+02 .4320000E+07-.1443376E+02  
.4654747E+00 .7523054E+05 .3600000E+02 .7244422E+04-.7546273E+04-.8640000E+05 .3773137E+06 .1955994E+06  
- .2902413E+04 .1451206E+06-.2332800E+07 .4892000E+00  
CASE NUMBER 426 GROUP NUMBER 2  
.4436553E+01-.2218276E+03-.5000000E+02-.8215838E+02 .1643168E+01 .1280722E+01 .5915404E+02 .1728000E+04  
.2886751E+00 .1597159E+03 .2500000E+04 .1109138E+05 .4665600E+05 .1039230E+02 .4320000E+07-.1443376E+02  
.4743416E+00 .7666363E+05 .3600000E+02 .7666363E+04-.7985795E+04-.8640000E+05 .3992897E+06 .2069918E+06  
- .2957702E+04 .1478851E+06-.2332800E+07 .4992000E+00  
CASE NUMBER 427 GROUP NUMBER 2  
.4685296E+01-.2342648E+03-.5000000E+02-.8366600E+02 .1673320E+01 .1352528E+01 .6023952E+02 .1728000E+04  
.2886751E+00 .1686707E+03 .2500000E+04 .1171324E+05 .4665600E+05 .1039230E+02 .4320000E+07-.1443376E+02  
.4830459E+00 .7807042E+05 .3600000E+02 .8096192E+04-.8433533E+04-.8640000E+05 .4216767E+06 .2185972E+06  
- .3011976E+04 .1505988E+06-.2332800E+07 .5081000E+00  
CASE NUMBER 428 GROUP NUMBER 2  
.4938522E+01-.2469261E+03-.5000000E+02-.8514693E+02 .1702939E+01 .1425623E+01 .6130579E+02 .1728000E+04  
.2886751E+00 .1777868E+03 .2500000E+04 .1234631E+05 .4665600E+05 .1039230E+02 .4320000E+07-.1443376E+02  
.4915960E+00 .7945231E+05 .3600000E+02 .8533766E+04-.8889340E+04-.8640000E+05 .4444670E+06 .2304117E+06  
- .3065290E+04 .1532645E+06-.2332800E+07 .5176000E+00  
CASE NUMBER 429 GROUP NUMBER 2  
0. 0. -.5000000E+020. 0. 0. 0. 0. 0. 3048625E+04  
.2626129E+000. .2500000E+040. .4665600E+05 .9454063E+01 .7621562E+07-.1313064E+02  
0. 0. .3600000E+020. 0. -.1524313E+060. 0.  
0. 0. -.2332800E+07 .3393000E+00  
CASE NUMBER 430 GROUP NUMBER 2  
.3535534E+00-.1767767E+02-.5000000E+02-.3535534E+02 .7071068E+00 .9284787E+01 .2545584E+02 .3048625E+04  
.2626129E+00 .1272792E+02 .2500000E+04 .8838835E+03 .4665600E+05 .9454063E+01 .7621562E+07-.1313064E+02  
.1856953E+00 .3299077E+05 .3600000E+02 .1077852E+04-.6363961E+03-.1524313E+06 .3181981E+05 .1649539E+05  
- .1272792E+04 .6363961E+05-.2332800E+07 .3693000E+00  
CASE NUMBER 431 GROUP NUMBER 2  
.1000000E+01-.5000000E+02-.5000000E+02-.5000000E+02 .1000000E+01 .2626129E+00 .3600000E+02 .3048625E+04  
.2626129E+00 .3600000E+02 .2500000E+04 .2500000E+04 .4665600E+05 .9454063E+01 .7621562E+07-.1313064E+02  
.2626129E+00 .4665600E+05 .3600000E+02 .3048625E+04-.1800000E+04-.1524313E+06 .9000000E+05 .4665600E+05  
- .1800000E+04 .9000000E+05-.2332800E+07 .3997000E+00  
CASE NUMBER 432 GROUP NUMBER 2  
.1837117E+01-.9185587E+02-.5000000E+02-.6123724E+02 .1224745E+01 .4824506E+00 .4409082E+02 .3048625E+04  
.2626129E+00 .6613622E+02 .2500000E+04 .4592793E+04 .4665600E+05 .9454063E+01 .7621562E+07-.1313064E+02  
.3216338E+00 .5714170E+05 .3600000E+02 .5600682E+04-.3306811E+04-.1524313E+06 .1653406E+06 .8571255E+05  
- .2204541E+04 .1102270E+06-.2332800E+07 .4302000E+00

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## DATA INPUT

CASE NUMBER	GROUP NUMBER
433	2
.2828427E+01-.1414214E+03-.5000000E+02-.7071068E+02-.1414214E+01-.7427814E+00-.5091169E+02-.3048625E+04	
.2626129E+00-.1018234E+03-.2500000E+04-.7071068E+04-.4665600E+05-.9454063E+01-.7621562E+07-.1313064E+02	
.3713907E+00-.6598155E+05-.3600000E+02-.8622814E+04-.5091169E+04-.1524313E+06-.2545584E+06-.1319631E+06	
-.2545584E+04-.1272792E+06-.2332800E+07-.4671000E+00	
434	2
.3043189E+01-.1521595E+03-.5000000E+02-.7245688E+02-.1449138E+01-.7991806E+00-.5216896E+02-.3048625E+04	
.2626129E+00-.1095548E+03-.2500000E+04-.7607973E+04-.4665600E+05-.9454063E+01-.7621562E+07-.1313064E+02	
.3805622E+00-.6761097E+05-.3600000E+02-.9277642E+04-.5477740E+04-.1524313E+06-.2738870E+06-.1419830E+06	
-.2608448E+04-.1304224E+06-.2332800E+07-.4761000E+00	
435	2
.3263127E+01-.1631564E+03-.5000000E+02-.7416198E+02-.1483240E+01-.8569392E+00-.5339663E+02-.3048625E+04	
.2626129E+00-.1174726E+03-.2500000E+04-.8157818E+04-.4665600E+05-.9454063E+01-.7621562E+07-.1313064E+02	
.3895178E+00-.6920201E+05-.3600000E+02-.9848052E+04-.5873629E+04-.1524313E+06-.2936815E+06-.1522445E+06	
-.2669831E+04-.1334916E+06-.2332800E+07-.4856000E+00	
436	2
0.0.0.0.0.0.0.3430000E+03	
.3779645E+00.0.0.0.4665600E+05.1360672E+020.0.0.	
0.0.3600000E+020.0.0.0.	
0.0.0.2747000E+00	
437	2
.3535534E+000.0.0.7071068E+00.1336308E+00.2545584E+02.3430000E+03	
.3779645E+00.1272792E+020.0.4665600E+05.1360672E+020.0.	
.2672612E+00.3299077E+05.3600000E+02.1212688E+030.0.1649539E+05	
0.0.0.2919000E+00	
438	2
.1000000E+010.0.0.1000000E+01.3779645E+00.3600000E+02.3430000E+03	
.3779645E+00.3600000E+020.0.4665600E+05.1360672E+020.0.	
.3779645E+00.4665600E+05.3600000E+02.3430000E+030.0.4665600E+05	
0.0.0.3168000E+00	
439	2
.1837117E+010.0.0.1224745E+01.6943651E+00.4409082E+02.3430000E+03	
.3779645E+00.8613622E+020.0.4665600E+05.1360672E+020.0.	
.4629100E+00.5714170E+05.3600000E+02.6301312E+030.0.9571255E+05	
0.0.0.3400000E+00	
440	2
.2828427E+010.0.0.1414214E+01.1069045E+01.5091169E+02.3430000E+03	
.3779645E+00.1018234E+030.0.4665600E+05.1360672E+020.0.	
.5345225E+00.6598155E+05.3600000E+02.9701505E+030.0.1319631E+06	
0.0.0.3632000E+00	

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## DATA INPUT

CASE NUMBER	GROUP NUMBER
441	2
.3919014E+010.0.0.1578615E+01.1481248E+01.5675813E+02.3430000E+03	
.3779645E+00.1410845E+030.0.4665600E+05.1360672E+020.0.	
.5959044E+00.7355854E+05.3600000E+02.1344222E+040.0.1828455E+06	
0.0.0.3879000E+00	
442	2
.5196152E+010.0.0.1732051E+01.1963961E+01.6235383E+02.3430000E+03	
.3779645E+00.1870615E+030.0.4665600E+05.1360672E+020.0.	
.6546537E+00.8081056E+05.3600000E+02.1782280E+040.0.2424317E+06	
0.0.0.4187000E+00	
443	2
.6547900E+010.0.0.1870829E+01.2474874E+01.6734983E+02.3430000E+03	
.3779645E+00.2357244E+030.0.4665600E+05.1360672E+020.0.	
.7071068E+00.8728538E+05.3600000E+02.2245930E+040.0.3054988E+06	
0.0.0.4523000E+00	
444	2
.6830520E+010.0.0.1897367E+01.2581694E+01.6830520E+02.3430000E+03	
.3779645E+00.2458987E+030.0.4665600E+05.1360672E+020.0.	
.7171372E+00.8852354E+05.3600000E+02.2342868E+040.0.3186847E+06	
0.0.0.4580000E+00	
445	2
.7117092E+010.0.0.1923538E+01.2690008E+01.6924738E+02.3430000E+03	
.3779645E+00.2562153E+030.0.4665600E+05.1360672E+020.0.	
.7270292E+00.8974461E+05.3600000E+02.2441163E+040.0.3320550E+06	
0.0.0.4641000E+00	
446	2
.7407564E+010.0.0.1949359E+01.2799796E+01.7017692E+02.3430000E+03	
.3779645E+00.2666723E+030.0.4665600E+05.1360672E+020.0.	
.7367884E+00.9094929E+05.3600000E+02.2540794E+040.0.3456073E+06	
0.0.0.4704000E+00	
447	2
.7701883E+010.0.0.1974842E+01.2911038E+01.7109430E+02.3430000E+03	
.3779645E+00.2772678E+030.0.4665600E+05.1360672E+020.0.	
.7464200E+00.9213822E+05.3600000E+02.2641746E+040.0.3593390E+06	
0.0.0.4770000E+00	
448	2
.8000000E+010.0.0.2000000E+01.3023716E+01.7200000E+02.3430000E+03	
.3779645E+00.2880000E+030.0.4665600E+05.1360672E+020.0.	
.7559289E+00.9331200E+05.3600000E+02.2744000E+040.0.3732480E+06	
0.0.0.4838000E+00	



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## DATA INPUT

CASE NUMBER	449			GROUP NUMBER	2	
0.	0.	0.	0.	0.	0.	.7290000E+03
.333333E+00	0.	0.	0.	.4665600E+05	.1200000E+020.	0.
0.	0.	.3600000E+020.	0.	0.	0.	0.
0.	0.	0.	.2884000E+00	0.	0.	0.
CASE NUMBER	450			GROUP NUMBER	2	
.353534E+00	0.	0.	0.	.7071068E+00	.1178511E+00	.2545584E+02 .7290000E+03
.333333E+00	.1272782E+020.	0.	0.	.4665600E+05	.1200000E+020.	0.
.2357023E+00	.3299077E+05	.3600000E+02	.2577404E+030.	0.	0.	.1649539E+05
0.	0.	0.	.3109000E+00	0.	0.	0.
CASE NUMBER	451			GROUP NUMBER	2	
.1000000E+010.	0.	0.	0.	.1000000E+01	.333333E+00	.3600000E+02 .7290000E+03
.333333E+00	.3600000E+020.	0.	0.	.4665600E+05	.1200000E+020.	0.
.333333E+00	.4665600E+05	.3600000E+02	.7290000E+030.	0.	0.	.4665600E+05
0.	0.	0.	.3341000E+00	0.	0.	0.
CASE NUMBER	452			GROUP NUMBER	2	
.1837117E+010.	0.	0.	0.	.1224745E+01	.6123724E+00	.4409082E+02 .7290000E+03
.333333E+00	.6613622E+020.	0.	0.	.4665600E+05	.1200000E+020.	0.
.4082483E+00	.5714170E+05	.3600000E+02	.1339259E+040.	0.	0.	.8571255E+05
0.	0.	0.	.3559000E+00	0.	0.	0.
CASE NUMBER	453			GROUP NUMBER	2	
.2828427E+010.	0.	0.	0.	.1414214E+01	.9428090E+00	.5091169E+02 .7290000E+03
.333333E+00	.1018234E+030.	0.	0.	.4665600E+05	.1200000E+020.	0.
.4714045E+00	.6598155E+05	.3600000E+02	.2061923E+040.	0.	0.	.1319631E+06
0.	0.	0.	.3820000E+00	0.	0.	0.
CASE NUMBER	454			GROUP NUMBER	2	
.3952847E+010.	0.	0.	0.	.1581139E+01	.1317616E+01	.5692100E+02 .7290000E+03
.333333E+00	.1423025E+030.	0.	0.	.4665600E+05	.1200000E+020.	0.
.5270463E+00	.7376961E+05	.3600000E+02	.2881626E+040.	0.	0.	.1844240E+06
0.	0.	0.	.4123000E+00	0.	0.	0.
CASE NUMBER	455			GROUP NUMBER	2	
.5196152E+010.	0.	0.	0.	.1732051E+01	.1732051E+01	.6235383E+02 .7290000E+03
.333333E+00	.1870615E+030.	0.	0.	.4665600E+05	.1200000E+020.	0.
.5773503E+00	.8081056E+05	.3600000E+02	.3787995E+040.	0.	0.	.2424317E+06
0.	0.	0.	.4452000E+00	0.	0.	0.
CASE NUMBER	456			GROUP NUMBER	2	
.5458113E+010.	0.	0.	0.	.1760682E+01	.1819371E+01	.6338454E+02 .7290000E+03
.333333E+00	.1964921E+030.	0.	0.	.4665600E+05	.1200000E+020.	0.
.5868939E+00	.8214636E+05	.3600000E+02	.3978965E+040.	0.	0.	.2546537E+06
0.	0.	0.	.4526000E+00	0.	0.	0.

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## DATA INPUT

CASE NUMBER	457			GROUP NUMBER	2	
.5724334E+010.	0.	0.	0.	.1788854E+01	.1908111E+01	.6439876E+02 .7290000E+03
.333333E+00	.2060760E+030.	0.	0.	.4665600E+05	.1200000E+020.	0.
.5962848E+00	.8346079E+05	.3600000E+02	.4173040E+040.	0.	0.	.2670745E+06
0.	0.	0.	.4601000E+00	0.	0.	0.
CASE NUMBER	458			GROUP NUMBER	2	
.5994748E+010.	0.	0.	0.	.1816590E+01	.1998249E+01	.6539725E+02 .7290000E+03
.333333E+00	.2158109E+030.	0.	0.	.4665600E+05	.1200000E+020.	0.
.6055301E+00	.8475483E+05	.3600000E+02	.4370171E+040.	0.	0.	.2796909E+06
0.	0.	0.	.4685000E+00	0.	0.	0.
CASE NUMBER	459			GROUP NUMBER	2	
.6269290E+010.	0.	0.	0.	.1843909E+01	.2089763E+01	.6638072E+02 .7290000E+03
.333333E+00	.2256944E+030.	0.	0.	.4665600E+05	.1200000E+020.	0.
.6146363E+00	.8602941E+05	.3600000E+02	.4570313E+040.	0.	0.	.2925000E+06
0.	0.	0.	.4770000E+00	0.	0.	0.
CASE NUMBER	460			GROUP NUMBER	2	
.6547900E+010.	0.	0.	0.	.1870829E+01	.2182633E+01	.6734983E+02 .7290000E+03
.333333E+00	.2357244E+030.	0.	0.	.4665600E+05	.1200000E+020.	0.
.6236096E+00	.8728538E+05	.3600000E+02	.4773419E+040.	0.	0.	.3054988E+06
0.	0.	0.	.4855000E+00	0.	0.	0.
CASE NUMBER	461			GROUP NUMBER	2	
0.	0.	0.	0.	0.	0.	.1000000E+04
.3162278E+00	0.	0.	0.	.4665600E+05	.1138420E+020.	0.
0.	0.	.3600000E+020.	0.	0.	0.	0.
0.	0.	0.	.2942000E+00	0.	0.	0.
CASE NUMBER	462			GROUP NUMBER	2	
.353534E+000.	0.	0.	0.	.7071068E+00	.1118034E+00	.2545584E+02 .1000000E+04
.3162278E+00	.1272792E+020.	0.	0.	.4665600E+05	.1138420E+020.	0.
.2236068E+00	.3299077E+05	.3600000E+02	.353534E+030.	0.	0.	.1649539E+05
0.	0.	0.	.3178000E+00	0.	0.	0.
CASE NUMBER	463			GROUP NUMBER	2	
.1000000E+010.	0.	0.	0.	.1000000E+01	.3162278E+00	.3600000E+02 .1000000E+04
.3162278E+00	.3600000E+020.	0.	0.	.4665600E+05	.1138420E+020.	0.
.3162278E+00	.4665600E+05	.3600000E+02	.1000000E+040.	0.	0.	.4665600E+05
0.	0.	0.	.3299000E+00	0.	0.	0.
CASE NUMBER	464			GROUP NUMBER	2	
.1837117E+010.	0.	0.	0.	.1224745E+01	.5809475E+00	.4409082E+02 .1000000E+04
.3162278E+00	.6613622E+020.	0.	0.	.4665600E+05	.1138420E+020.	0.
.3872983E+00	.5714170E+05	.3600000E+02	.1837117E+040.	0.	0.	.8571255E+05
0.	0.	0.	.3645000E+00	0.	0.	0.

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## DATA INPUT

CASE NUMBER	465			GROUP NUMBER	2		
.2828427E+010.	0.	0.	.1414214E+01	.8944272E+00	.5091169E+02	.1000000E+04	
.3162278E+00	.1018234E+030.	0.	.4665600E+05	.1138420E+020.	0.	0.	
.4472136E+00	.6598155E+05	.3600000E+02	.2828427E+040.	0.	0.	.1319631E+05	
0.	0.	0.	.3523000E+00				
CASE NUMBER	466			GROUP NUMBER	2		
.3952847E+010.	0.	0.	.1581139E+01	.1250000E+01	.5692100E+02	.1000000E+04	
.3162278E+00	.1423025E+030.	0.	.4665600E+05	.1138420E+020.	0.	0.	
.5000000E+00	.7376961E+05	.3600000E+02	.3952847E+040.	0.	0.	.1844240E+05	
0.	0.	0.	.4233000E+00				
CASE NUMBER	467			GROUP NUMBER	2		
.5196152E+010.	0.	0.	.1732051E+01	.1643168E+01	.6235383E+02	.1000000E+04	
.3162278E+00	.1870815E+030.	0.	.4665600E+05	.1138420E+020.	0.	0.	
.5477226E+00	.8081056E+05	.3600000E+02	.5196152E+040.	0.	0.	.2424317E+05	
0.	0.	0.	.4587000E+00				
CASE NUMBER	468			GROUP NUMBER	2		
.5458113E+010.	0.	0.	.1760882E+01	.1726007E+01	.6338454E+02	.1000000E+04	
.3162278E+00	.1984921E+030.	0.	.4665600E+05	.1138420E+020.	0.	0.	
.5567764E+00	.8214636E+05	.3600000E+02	.5458113E+040.	0.	0.	.2546537E+05	
0.	0.	0.	.4668000E+00				
CASE NUMBER	469			GROUP NUMBER	2		
.5724334E+010.	0.	0.	.1788854E+01	.1810193E+01	.6439876E+02	.1000000E+04	
.3162278E+00	.2060760E+030.	0.	.4665600E+05	.1138420E+020.	0.	0.	
.5658354E+00	.8346079E+05	.3600000E+02	.5724334E+040.	0.	0.	.2670745E+05	
0.	0.	0.	.4754000E+00				
CASE NUMBER	470			GROUP NUMBER	2		
0.	0.	0.	0.	0.	0.	.1728000E+04	
.2886751E+000.	0.	0.	.4665600E+05	.1039230E+020.	0.	0.	
0.	0.	.3600000E+020.	0.	0.	0.	0.	
0.	0.	0.	.3026000E+00				
CASE NUMBER	471			GROUP NUMBER	2		
.3535534E+000.	0.	0.	.7071068E+00	.1020621E+00	.2545584E+02	.1728000E+04	
.2886751E+00	.1272792E+020.	0.	.4665600E+05	.1039230E+020.	0.	0.	
.2041241E+00	.3299077E+05	.3600000E+02	.6109403E+030.	0.	0.	.1649539E+05	
0.	0.	0.	.3287000E+00				
CASE NUMBER	472			GROUP NUMBER	2		
.1000000E+010.	0.	0.	.1000000E+01	.2886751E+00	.3600000E+02	.1728000E+04	
.2886751E+00	.3600000E+020.	0.	.4665600E+05	.1039230E+020.	0.	0.	
.2886751E+00	.4665600E+05	.3600000E+02	.1728000E+040.	0.	0.	.4665600E+05	
0.	0.	0.	.3546000E+00				

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## DATA INPUT

CASE NUMBER	473			GROUP NUMBER	2		
.1837117E+010.	0.	0.	.1224745E+01	.5303301E+00	.4409082E+02	.1728000E+04	
.2886751E+00	.6613622E+020.	0.	.4665600E+05	.1039230E+020.	0.	0.	
.3535534E+00	.5714170E+05	.3600000E+02	.3174539E+040.	0.	0.	.8571255E+05	
0.	0.	0.	.3817000E+00				
CASE NUMBER	474			GROUP NUMBER	2		
.2828427E+010.	0.	0.	.1414214E+01	.8164966E+00	.5091169E+02	.1728000E+04	
.2886751E+00	.1018234E+030.	0.	.4665600E+05	.1039230E+020.	0.	0.	
.4082483E+00	.6598155E+05	.3600000E+02	.4887522E+040.	0.	0.	.1319631E+05	
0.	0.	0.	.4125000E+00				
CASE NUMBER	475			GROUP NUMBER	2		
.3952847E+010.	0.	0.	.1581139E+01	.1141089E+01	.5692100E+02	.1728000E+04	
.2886751E+00	.1423025E+030.	0.	.4665600E+05	.1039230E+020.	0.	0.	
.4564355E+00	.7376961E+05	.3600000E+02	.6830520E+040.	0.	0.	.1844240E+05	
0.	0.	0.	.4458000E+00				
CASE NUMBER	476			GROUP NUMBER	2		
.4192374E+010.	0.	0.	.1612452E+01	.1210234E+01	.5804826E+02	.1728000E+04	
.2886751E+00	.1509255E+030.	0.	.4665600E+05	.1039230E+020.	0.	0.	
.4654747E+00	.7523054E+05	.3600000E+02	.7244422E+040.	0.	0.	.1955994E+05	
0.	0.	0.	.4532000E+00				
CASE NUMBER	477			GROUP NUMBER	2		
0.	0.	0.	0.	0.	0.	.3048625E+04	
.2626129E+000.	0.	0.	.4665600E+05	.9454063E+010.	0.	0.	
0.	0.	.3600000E+020.	0.	0.	0.	0.	
0.	0.	0.	.3163000E+00				
CASE NUMBER	478			GROUP NUMBER	2		
.3535534E+000.	0.	0.	.7071068E+00	.9284767E+01	.2545584E+02	.3048625E+04	
.2626129E+00	.1272792E+020.	0.	.4665600E+05	.9454063E+010.	0.	0.	
.1856953E+00	.3299077E+05	.3600000E+02	.1077852E+040.	0.	0.	.1649539E+05	
0.	0.	0.	.3437000E+00				
CASE NUMBER	479			GROUP NUMBER	2		
.1000000E+010.	0.	0.	.1000000E+01	.2626129E+00	.3600000E+02	.3048625E+04	
.2626129E+00	.3600000E+020.	0.	.4665600E+05	.9454063E+010.	0.	0.	
.2626129E+00	.4665600E+05	.3600000E+02	.3048625E+040.	0.	0.	.4665600E+05	
0.	0.	0.	.3730000E+00				
CASE NUMBER	480			GROUP NUMBER	2		
.1837117E+010.	0.	0.	.1224745E+01	.4824506E+00	.4409082E+02	.3048625E+04	
.2626129E+00	.6613622E+020.	0.	.4665600E+05	.9454063E+010.	0.	0.	
.3216338E+00	.5714170E+05	.3600000E+02	.5600682E+040.	0.	0.	.8571255E+05	
0.	0.	0.	.4032000E+00				

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## DATA INPUT

CASE NUMBER	481	0.	0.	GROUP NUMBER	2	0.	0.
.2023858E+010.	.7285888E+020.	.3600000E+02	.616983E+040.	.1254911E+01	.5314911E+00	.4553680E+02	.3048625E+04
.2626129E+00	.5801569E+05	.4091000E+00	.4665600E+05	.9454063E+010.	0.	0.	.9442510E+05
.3321819E+00	0.	0.	0.	0.	0.	0.	0.
CASE NUMBER	482	0.	0.	GROUP NUMBER	2	0.	0.
.2216529E+010.	.7979504E+020.	.3600000E+02	.6757365E+040.	.1303840E+01	.5820890E+00	.4693826E+02	.3048625E+04
.2626129E+00	.6083198E+05	.4152000E+00	.4665600E+05	.9454063E+010.	0.	0.	.1034144E+06
.3424053E+00	0.	0.	0.	0.	0.	0.	0.
CASE NUMBER	483	0.	0.	GROUP NUMBER	2	0.	0.
.2414953E+010.	.8693832E+020.	.3600000E+02	.7362287E+040.	.1341641E+01	.6341978E+00	.4829907E+02	.3048625E+04
.2626129E+00	.6259559E+05	.4216000E+00	.4665600E+05	.9454063E+010.	0.	0.	.1126721E+06
.3523321E+00	0.	0.	0.	0.	0.	0.	0.
CASE NUMBER	484	0.	0.	GROUP NUMBER	2	0.	0.
.2618969E+010.	.9428289E+020.	.3600000E+02	.7984255E+040.	.1378405E+01	.6877750E+00	.4962258E+02	.3048625E+04
.2626129E+00	.6431086E+05	.4281000E+00	.4665600E+05	.9454063E+010.	0.	0.	.1221906E+06
.3619869E+00	0.	0.	0.	0.	0.	0.	0.
CASE NUMBER	485	0.	0.	GROUP NUMBER	2	0.	0.
.2828427E+010.	.1018234E+030.	.3600000E+02	.8622814E+040.	.1414214E+01	.7427814E+00	.5091169E+02	.3048625E+04
.2626129E+00	.6598155E+05	.4351000E+00	.4665600E+05	.9454063E+010.	0.	0.	.1319631E+06
.3713907E+00	0.	0.	0.	0.	0.	0.	0.
CASE NUMBER	486	0.	0.	GROUP NUMBER	2	0.	0.
.3779645E+000.	.1000000E+030.	.1000000E+050.	.4665600E+05	.1360672E+02	.3430000E+07	.3779645E+02	.3430000E+03
0.	.3600000E+020.	0.	.3430000E+050.	0.	0.	0.	0.
0.	0.	0.	.2542000E+00	0.	0.	0.	0.
CASE NUMBER	487	0.	0.	GROUP NUMBER	2	0.	0.
.3535534E+00	.3535534E+02	.1000000E+03	.7071068E+02	.7071068E+00	.1336308E+00	.2545584E+02	.3430000E+03
.3779645E+00	.1272792E+02	.1000000E+05	.3535534E+04	.4665600E+05	.1360672E+02	.3430000E+07	.3779645E+02
.2672612E+00	.3299077E+05	.3600000E+02	.1212888E+03	.1272792E+04	.3430000E+05	.1272792E+06	.1649539E+05
.2545584E+04	.2545584E+06	.4665600E+07	.2690000E+00	0.	0.	0.	0.
CASE NUMBER	488	0.	0.	GROUP NUMBER	2	0.	0.
.1000000E+01	.1000000E+03	.1000000E+03	.1000000E+03	.1000000E+01	.3779645E+00	.3600000E+02	.3430000E+03
.3779645E+00	.3600000E+02	.1000000E+05	.1000000E+05	.4665600E+05	.1360672E+02	.3430000E+07	.3779645E+02
.3779645E+00	.4665600E+05	.3600000E+02	.3430000E+03	.3600000E+04	.3430000E+05	.3600000E+06	.4665600E+05
.3600000E+04	.3600000E+06	.4665600E+07	.2848000E+00	0.	0.	0.	0.

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## DATA INPUT

CASE NUMBER	489	0.	0.	GROUP NUMBER	2	0.	0.
.1837117E+01	.1837117E+03	.1000000E+03	.1224745E+03	.1224745E+01	.6943651E+00	.4409082E+02	.3430000E+03
.3779645E+00	.6613622E+02	.1000000E+05	.1837117E+05	.4665600E+05	.1360672E+02	.3430000E+07	.3779645E+02
.4629100E+00	.5714170E+05	.3600000E+02	.6301312E+03	.6613622E+04	.3430000E+05	.6613622E+06	.8571255E+05
.4409082E+04	.4409082E+06	.4665600E+07	.3036000E+00	0.	0.	0.	0.
CASE NUMBER	490	0.	0.	GROUP NUMBER	2	0.	0.
.2828427E+01	.2828427E+03	.1000000E+03	.1414214E+03	.1414214E+01	.1069045E+01	.5091169E+02	.3430000E+03
.3779645E+00	.1018234E+03	.1000000E+05	.2828427E+05	.4665600E+05	.1360672E+02	.3430000E+07	.3779645E+02
.5345225E+00	.6598155E+05	.3600000E+02	.9701505E+03	.1018234E+05	.3430000E+05	.1018234E+07	.1319631E+06
.5091169E+04	.5091169E+06	.4665600E+07	.3241000E+00	0.	0.	0.	0.
CASE NUMBER	491	0.	0.	GROUP NUMBER	2	0.	0.
.3952847E+01	.3952847E+03	.1000000E+03	.1581139E+03	.1581139E+01	.1494036E+01	.5692100E+02	.3430000E+03
.3779645E+00	.1423025E+03	.1000000E+05	.3952847E+05	.4665600E+05	.1360672E+02	.3430000E+07	.3779645E+02
.5976143E+00	.7376961E+05	.3600000E+02	.1355827E+04	.1423025E+05	.3430000E+05	.1423025E+07	.1844240E+06
.5692100E+04	.5692100E+06	.4665600E+07	.3464000E+00	0.	0.	0.	0.
CASE NUMBER	492	0.	0.	GROUP NUMBER	2	0.	0.
.5196152E+01	.5196152E+03	.1000000E+03	.1732051E+03	.1732051E+01	.1963961E+01	.6235383E+02	.3430000E+03
.3779645E+00	.1870615E+03	.1000000E+05	.5196152E+05	.4665600E+05	.1360672E+02	.3430000E+07	.3779645E+02
.6546537E+00	.8081056E+05	.3600000E+02	.1782280E+04	.1870615E+05	.3430000E+05	.1870615E+07	.2424317E+06
.6235383E+04	.6235383E+06	.4665600E+07	.3727000E+00	0.	0.	0.	0.
CASE NUMBER	493	0.	0.	GROUP NUMBER	2	0.	0.
.6547900E+01	.6547900E+03	.1000000E+03	.1870829E+03	.1870829E+01	.2474874E+01	.6734983E+02	.3430000E+03
.3779645E+00	.2357244E+03	.1000000E+05	.6547900E+05	.4665600E+05	.1360672E+02	.3430000E+07	.3779645E+02
.7071068E+00	.8728538E+05	.3600000E+02	.2245930E+04	.2357244E+05	.3430000E+05	.2357244E+07	.3054988E+06
.6734983E+04	.6734983E+06	.4665600E+07	.4046000E+00	0.	0.	0.	0.
CASE NUMBER	494	0.	0.	GROUP NUMBER	2	0.	0.
.6830520E+01	.6830520E+03	.1000000E+03	.1897367E+03	.1897367E+01	.2581694E+01	.6830520E+02	.3430000E+03
.3779645E+00	.2458987E+03	.1000000E+05	.6830520E+05	.4665600E+05	.1360672E+02	.3430000E+07	.3779645E+02
.7171372E+00	.8852354E+05	.3600000E+02	.2342868E+04	.2458987E+05	.3430000E+05	.2458987E+07	.3186847E+06
.6830520E+04	.6830520E+06	.4665600E+07	.4104000E+00	0.	0.	0.	0.
CASE NUMBER	495	0.	0.	GROUP NUMBER	2	0.	0.
.7117092E+01	.7117092E+03	.1000000E+03	.1923538E+03	.1923538E+01	.2690008E+01	.6924738E+02	.3430000E+03
.3779645E+00	.2562153E+03	.1000000E+05	.7117092E+05	.4665600E+05	.1360672E+02	.3430000E+07	.3779645E+02
.7270292E+00	.8974461E+05	.3600000E+02	.2441163E+04	.2562153E+05	.3430000E+05	.2562153E+07	.3320550E+06
.6924738E+04	.6924738E+06	.4665600E+07	.4166000E+00	0.	0.	0.	0.
CASE NUMBER	496	0.	0.	GROUP NUMBER	2	0.	0.
.7407564E+01	.7407564E+03	.1000000E+03	.1949359E+03	.1949359E+01	.2799796E+01	.7017692E+02	.3430000E+03
.3779645E+00	.2666723E+03	.1000000E+05	.7407564E+05	.4665600E+05	.1360672E+02	.3430000E+07	.3779645E+02
.7367884E+00	.9094929E+05	.3600000E+02	.2540794E+04	.2666723E+05	.3430000E+05	.2666723E+07	.3456073E+06
.7017692E+04	.7017692E+06	.4665600E+07	.4232000E+00	0.	0.	0.	0.

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## DATA INPUT

CASE NUMBER 497 GROUP NUMBER 2  
0. 0. 1000000E+030. 0. 0. 0. 7290000E+03  
.333333E+00. 1000000E+050. 4665600E+05 1200000E+02 7290000E+07 .333333E+02  
0. 0. 3600000E+020. 0. 0. 7290000E+050. 0.  
0. 0. 4665600E+07 2623000E+00  
CASE NUMBER 498 GROUP NUMBER 2  
.353534E+00 .353534E+02 1000000E+03 .7071068E+02 .7071068E+00 .1178511E+00 2545584E+02 .7290000E+03  
.333333E+00 .1272792E+02 1000000E+05 .353534E+04 .4665600E+05 1200000E+02 7290000E+07 .333333E+02  
.2357023E+00 .3299077E+05 3600000E+02 .2577404E+03 .1272792E+04 .7290000E+05 1272792E+06 .1649539E+05  
.2545584E+04 .2545584E+06 .4665600E+07 .2795000E+00  
CASE NUMBER 499 GROUP NUMBER 2  
1000000E+01 1000000E+03 1000000E+03 1000000E+03 1000000E+01 .333333E+00 3600000E+02 .7290000E+03  
.333333E+00 3600000E+02 1000000E+05 1000000E+05 4665600E+05 1200000E+02 7290000E+07 .333333E+02  
.333333E+00 4665600E+05 3600000E+02 7290000E+03 3600000E+04 7290000E+05 3600000E+06 4665600E+05  
3600000E+04 3600000E+06 4665600E+07 2983000E+00  
CASE NUMBER 500 GROUP NUMBER 2  
.1837117E+01 .1837117E+03 1000000E+03 .1224745E+03 .1224745E+01 .6123724E+00 4409082E+02 .7290000E+03  
.333333E+00 .6613622E+02 1000000E+05 .1837117E+05 4665600E+05 1200000E+02 7290000E+07 .333333E+02  
.4082483E+00 .5714170E+05 3600000E+02 .1339259E+04 .6613622E+04 .7290000E+05 .6613622E+06 .8571255E+05  
.4409082E+04 .4409082E+06 4665600E+07 3197000E+00  
CASE NUMBER 501 GROUP NUMBER 2  
.2828427E+01 .2828427E+03 1000000E+03 .1414214E+03 .1414214E+01 .9428090E+00 5091169E+02 .7290000E+03  
.333333E+00 .1018234E+03 1000000E+05 .2828427E+05 4665600E+05 1200000E+02 7290000E+07 .333333E+02  
.4714045E+00 .6598155E+05 3600000E+02 .2061923E+04 .1018234E+05 .7290000E+05 .1018234E+07 .1319631E+06  
.5091169E+04 .5091169E+06 4665600E+07 3423000E+00  
CASE NUMBER 502 GROUP NUMBER 2  
.3952847E+01 .3952847E+03 1000000E+03 .1581139E+03 .1581139E+01 .1317616E+01 5692100E+02 .7290000E+03  
.333333E+00 .1423025E+03 1000000E+05 .3952847E+05 4665600E+05 1200000E+02 7290000E+07 .333333E+02  
.5270463E+00 .7376961E+05 3600000E+02 .2881626E+04 .1423025E+05 .7290000E+05 .1423025E+07 .1844240E+06  
.5692100E+04 .5692100E+06 4665600E+07 3687000E+00  
CASE NUMBER 503 GROUP NUMBER 2  
.5196152E+01 .5196152E+03 1000000E+03 .1732051E+03 .1732051E+01 .1732051E+01 6235383E+02 .7290000E+03  
.333333E+00 .1870615E+03 1000000E+05 .5196152E+05 4665600E+05 1200000E+02 7290000E+07 .333333E+02  
.5773503E+00 .8081056E+05 3600000E+02 .3787995E+04 .1870615E+05 .7290000E+05 .1870615E+07 .2424317E+06  
.6235383E+04 .6235383E+06 4665600E+07 4006000E+00  
CASE NUMBER 504 GROUP NUMBER 2  
.5458113E+01 .5458113E+03 1000000E+03 .1760682E+03 .1760682E+01 .1819371E+01 6338454E+02 .7290000E+03  
.333333E+00 .1964921E+03 1000000E+05 .5458113E+05 4665600E+05 1200000E+02 7290000E+07 .333333E+02  
.5968939E+00 .8214636E+05 3600000E+02 .3978955E+04 .1964921E+05 .7290000E+05 .1964921E+07 .2546537E+06  
.6338454E+04 .6338454E+06 4665600E+07 4078000E+00

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## DATA INPUT

CASE NUMBER 505 GROUP NUMBER 2  
.5724334E+01 .5724334E+03 1000000E+03 .1788854E+03 .1788854E+01 .1988111E+01 6439875E+02 .7290000E+03  
.333333E+00 .2060760E+03 1000000E+05 .5724334E+05 4665600E+05 1200000E+02 7290000E+07 .333333E+02  
.5962848E+00 .8346079E+05 3600000E+02 .4173040E+04 .2060760E+05 .7290000E+05 .2060760E+07 .2670745E+06  
.6439875E+04 .6439875E+06 4665600E+07 4152000E+00  
CASE NUMBER 506 GROUP NUMBER 2  
0. 0. 1000000E+030. 0. 0. 0. 1000000E+04  
.3162278E+000. 1000000E+050. 4665600E+05 1138420E+02 1000000E+08 .3162278E+02  
0. 0. 3600000E+020. 0. 1000000E+060. 0.  
0. 0. 4665600E+07 2667000E+00  
CASE NUMBER 507 GROUP NUMBER 2  
.353534E+00 .353534E+02 1000000E+03 .7071068E+02 .7071068E+00 .1118034E+00 2545584E+02 1000000E+04  
.3162278E+00 .1272792E+02 1000000E+05 .353534E+04 .4665600E+05 .1138420E+02 1000000E+08 .3162278E+02  
.2236068E+00 .3299077E+05 3600000E+02 .353534E+03 .1272792E+04 1000000E+06 1272792E+06 .1649539E+05  
.2545584E+04 .2545584E+06 .4665600E+07 .2846000E+00  
CASE NUMBER 508 GROUP NUMBER 2  
1000000E+01 1000000E+03 1000000E+03 1000000E+03 1000000E+01 .3162278E+00 3600000E+02 1000000E+04  
.3162278E+00 3600000E+02 1000000E+05 1000000E+05 4665600E+05 .1138420E+02 1000000E+08 .3162278E+02  
.3162278E+00 4665600E+05 3600000E+02 1000000E+04 3600000E+04 1000000E+06 3600000E+06 4665600E+05  
3600000E+04 3600000E+06 4665600E+07 3053000E+00  
CASE NUMBER 509 GROUP NUMBER 2  
.1837117E+01 .1837117E+03 1000000E+03 .1224745E+03 .1224745E+01 .5809475E+00 4409082E+02 1000000E+04  
.3162278E+00 .6613622E+02 1000000E+05 .1837117E+05 4665600E+05 .1138420E+02 1000000E+08 .3162278E+02  
.3872983E+00 .5714170E+05 3600000E+02 .1837117E+04 .6613622E+04 1000000E+06 .6613622E+06 .8571255E+05  
.4409082E+04 .4409082E+06 4665600E+07 3274000E+00  
CASE NUMBER 510 GROUP NUMBER 2  
.2828427E+01 .2828427E+03 1000000E+03 .1414214E+03 .1414214E+01 .8944272E+00 5091169E+02 1000000E+04  
.3162278E+00 .1018234E+03 1000000E+05 .2828427E+05 4665600E+05 .1138420E+02 1000000E+08 .3162278E+02  
.4472136E+00 .6598155E+05 3600000E+02 .2828427E+04 .1018234E+05 1000000E+06 .1018234E+07 .1319631E+06  
.5091169E+04 .5091169E+06 4665600E+07 3515000E+00  
CASE NUMBER 511 GROUP NUMBER 2  
.3952847E+01 .3952847E+03 1000000E+03 .1581139E+03 .1581139E+01 .1250000E+01 5692100E+02 1000000E+04  
.3162278E+00 .1423025E+03 1000000E+05 .3952847E+05 4665600E+05 .1138420E+02 1000000E+08 .3162278E+02  
.5000000E+00 .7376961E+05 3600000E+02 .3952847E+04 .1423025E+05 1000000E+06 .1423025E+07 .1844240E+06  
.5692100E+04 .5692100E+06 4665600E+07 3802000E+00  
CASE NUMBER 512 GROUP NUMBER 2  
.4192374E+01 .4192374E+03 1000000E+03 .1612452E+03 .1612452E+01 .1325745E+01 5804826E+02 1000000E+04  
.3162278E+00 .1509255E+03 1000000E+05 .4192374E+05 4665600E+05 .1138420E+02 1000000E+08 .3162278E+02  
.5099020E+00 .7522054E+05 3600000E+02 .4192374E+04 .1509255E+05 1000000E+06 .1509255E+07 .1955994E+06  
.5804826E+04 .5804826E+06 4665600E+07 3865000E+00

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CASE NUMBER	513	GROUP NUMBER	2
.4436553E+01	.4436553E+03	.1000000E+03	.1643168E+03
.3162278E+00	.1597159E+03	.1000000E+05	.4436553E+05
.5196152E+00	.7666363E+05	.3600000E+02	.4436553E+04
.5915404E+04	.5915404E+06	.4665600E+07	.3931000E+00
CASE NUMBER	514	GROUP NUMBER	2
.4685296E+01	.4685296E+03	.1000000E+03	.1673320E+03
.3162278E+00	.1686707E+03	.1000000E+05	.4685296E+05
.5291503E+00	.7807042E+05	.3600000E+02	.4685296E+04
.8023952E+04	.8023952E+06	.4665600E+07	.4000000E+00
CASE NUMBER	515	GROUP NUMBER	2
0.	0.	.1000000E+030.	0.
.2886751E+000.	0.	.1000000E+050.	0.
0.	0.	.3600000E+020.	0.
0.	0.	.4665600E+07	.2754000E+00
CASE NUMBER	516	GROUP NUMBER	2
.3535534E+00	.3535534E+02	.1000000E+03	.7071068E+02
.2886751E+00	.1272792E+02	.1000000E+05	.3535534E+04
.2041241E+00	.3298077E+05	.3600000E+02	.6109403E+03
.2545584E+04	.2545584E+06	.4665600E+07	.2953000E+00
CASE NUMBER	517	GROUP NUMBER	2
.1000000E+01	.1000000E+03	.1000000E+03	.1000000E+03
.2886751E+00	.3600000E+02	.1000000E+05	.1000000E+05
.2886751E+00	.4665600E+05	.3600000E+02	.1728000E+04
.3600000E+04	.3600000E+06	.4665600E+07	.3191000E+00
CASE NUMBER	518	GROUP NUMBER	2
.1837117E+01	.1837117E+03	.1000000E+03	.1224745E+03
.2886751E+00	.6613622E+02	.1000000E+05	.1837117E+05
.3535534E+00	.5714170E+05	.3600000E+02	.3174539E+04
.4409082E+04	.4409082E+06	.4665600E+07	.3429000E+00
CASE NUMBER	519	GROUP NUMBER	2
.2828427E+01	.2828427E+03	.1000000E+03	.1414214E+03
.2886751E+00	.1018234E+03	.1000000E+05	.2828427E+05
.4281744E+00	.6920203E+05	.3600000E+02	.5638684E+04
.5091169E+04	.5091169E+06	.4665600E+07	.3704000E+00
CASE NUMBER	520	GROUP NUMBER	2
.3043189E+01	.3043189E+03	.1000000E+03	.1449138E+03
.2886751E+00	.1095548E+03	.1000000E+05	.3043189E+05
.4183300E+00	.6761097E+05	.3600000E+02	.5258631E+04
.5216896E+04	.5216896E+06	.4665600E+07	.3764000E+00

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CASE NUMBER	521	GROUP NUMBER	2
.3263127E+01	.3263127E+03	.1000000E+03	.1483240E+03
.2886751E+00	.1174726E+03	.1000000E+05	.3263127E+05
.4281744E+00	.6920203E+05	.3600000E+02	.5638684E+04
.5339663E+04	.5339663E+06	.4665600E+07	.3826000E+00
CASE NUMBER	522	GROUP NUMBER	2
.3488123E+01	.3488123E+03	.1000000E+03	.1516575E+03
.2886751E+00	.1255724E+03	.1000000E+05	.3488123E+05
.4377975E+00	.7075733E+05	.3600000E+02	.6027476E+04
.5459670E+04	.5459670E+06	.4665600E+07	.3891000E+00
CASE NUMBER	523	GROUP NUMBER	2
0.	0.	.1000000E+030.	0.
.2626129E+000.	0.	.1000000E+050.	0.
0.	0.	.3600000E+020.	0.
0.	0.	.4665600E+07	.2888000E+00
CASE NUMBER	524	GROUP NUMBER	2
.3535534E+00	.3535534E+02	.1000000E+03	.7071068E+02
.2626129E+00	.1272792E+02	.1000000E+05	.3535534E+04
.1856953E+00	.3298077E+05	.3600000E+02	.1077852E+04
.2545584E+04	.2545584E+06	.4665600E+07	.3096000E+00
CASE NUMBER	525	GROUP NUMBER	2
.1000000E+01	.1000000E+03	.1000000E+03	.1000000E+03
.2626129E+00	.3600000E+02	.1000000E+05	.1000000E+05
.2626129E+00	.4665600E+05	.3600000E+02	.3048625E+04
.3600000E+04	.3600000E+06	.4665600E+07	.3356000E+00
CASE NUMBER	526	GROUP NUMBER	2
.1837117E+01	.1837117E+03	.1000000E+03	.1224745E+03
.2626129E+00	.6613622E+02	.1000000E+05	.1837117E+05
.3216338E+00	.5714170E+05	.3600000E+02	.5600682E+04
.4409082E+04	.4409082E+06	.4665600E+07	.3629000E+00
CASE NUMBER	527	GROUP NUMBER	2
.2023858E+01	.2023858E+03	.1000000E+03	.1264911E+03
.2626129E+00	.7288888E+02	.1000000E+05	.2023858E+05
.3321819E+00	.5901569E+05	.3600000E+02	.6169983E+04
.4553680E+04	.4553680E+06	.4665600E+07	.3688000E+00
CASE NUMBER	528	GROUP NUMBER	2
0.	0.	.2000000E+030.	0.
.3779645E+000.	0.	.4000000E+050.	0.
0.	0.	.3600000E+020.	0.
0.	0.	.9331200E+07	.2363000E+00

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## DATA INPUT

CASE NUMBER	529	GROUP NUMBER	2
.353534E+00	.7071068E+02	.2000000E+03	.1414214E+03
.3779645E+00	.1272792E+02	.4000000E+05	.1414214E+05
.2672612E+00	.3299077E+05	.3600000E+02	.1212688E+03
.5091169E+04	.1018234E+07	.9331200E+07	.2471000E+00
CASE NUMBER	530	GROUP NUMBER	2
.1000000E+01	.2000000E+03	.2000000E+03	.2000000E+03
.3779645E+00	.3600000E+02	.4000000E+05	.4000000E+05
.3779645E+00	.4665600E+05	.3600000E+02	.3430000E+03
.7200000E+04	.1440000E+07	.9331200E+07	.2622000E+00
CASE NUMBER	531	GROUP NUMBER	2
.1837117E+01	.3674235E+03	.2000000E+03	.2449490E+03
.3779645E+00	.6613622E+02	.4000000E+05	.7348469E+05
.4629100E+00	.5714170E+05	.3600000E+02	.6301312E+03
.8818163E+04	.1763633E+07	.9331200E+07	.2788000E+00
CASE NUMBER	532	GROUP NUMBER	2
.2828427E+01	.5656854E+03	.2000000E+03	.2828427E+03
.3779645E+00	.1018234E+02	.4000000E+05	.1131371E+06
.5345225E+00	.8598155E+05	.3600000E+02	.8701505E+03
.1018234E+05	.2036468E+07	.9331200E+07	.2973000E+00
CASE NUMBER	533	GROUP NUMBER	2
.3952847E+01	.7905694E+03	.2000000E+03	.3162278E+03
.3779645E+00	.1423025E+03	.4000000E+05	.1581139E+06
.5976143E+00	.7376961E+05	.3600000E+02	.1353827E+04
.1138420E+05	.2276840E+07	.9331200E+07	.3187000E+00
CASE NUMBER	534	GROUP NUMBER	2
.5196152E+01	.1039230E+04	.2000000E+03	.3464102E+03
.3779645E+00	.1870615E+03	.4000000E+05	.2078461E+05
.6546537E+00	.8081056E+05	.3600000E+02	.1782280E+04
.1247077E+05	.2494153E+07	.9331200E+07	.3438000E+00
CASE NUMBER	535	GROUP NUMBER	2
.6547900E+01	.1309580E+04	.2000000E+03	.3741657E+03
.3779645E+00	.2357244E+03	.4000000E+05	.2619160E+06
.7071068E+00	.8728528E+05	.3600000E+02	.2245930E+04
.1346997E+05	.2693933E+07	.9331200E+07	.3733000E+00
CASE NUMBER	536	GROUP NUMBER	2
.6830520E+01	.1366104E+04	.2000000E+03	.3794733E+03
.3779645E+00	.2458987E+03	.4000000E+05	.2732208E+05
.7171372E+00	.8852354E+05	.3600000E+02	.2342868E+04
.1366104E+05	.2732208E+07	.9331200E+07	.3787000E+00

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## DATA INPUT

CASE NUMBER	537	GROUP NUMBER	2
.0.	.0.	.2000000E+030.	.0.
.3333333E+000.	.0.	.4000000E+050.	.4665600E+05
.0.	.0.	.3600000E+020.	.1200000E+02
.0.	.0.	.9331200E+07	.2439000E+00
CASE NUMBER	538	GROUP NUMBER	2
.353534E+00	.7071068E+02	.2000000E+03	.1414214E+03
.3333333E+00	.1272792E+02	.4000000E+05	.1414214E+05
.2357023E+00	.3299077E+05	.3600000E+02	.2577404E+03
.5091169E+04	.1018234E+07	.9331200E+07	.2572000E+00
CASE NUMBER	539	GROUP NUMBER	2
.1000000E+01	.2000000E+03	.2000000E+03	.2000000E+03
.3333333E+00	.3600000E+02	.4000000E+05	.4000000E+05
.3333333E+00	.4665600E+05	.3600000E+02	.7290000E+03
.7200000E+04	.1440000E+07	.9331200E+07	.2743000E+00
CASE NUMBER	540	GROUP NUMBER	2
.1837117E+01	.3674235E+03	.2000000E+03	.2449490E+03
.3333333E+00	.6613622E+02	.4000000E+05	.7348469E+05
.4082483E+00	.5714170E+05	.3600000E+02	.1339259E+04
.8818163E+04	.1763633E+07	.9331200E+07	.2939000E+00
CASE NUMBER	541	GROUP NUMBER	2
.2828427E+01	.5656854E+03	.2000000E+03	.2828427E+03
.3333333E+00	.1018234E+03	.4000000E+05	.1131371E+06
.4714045E+00	.6598155E+05	.3600000E+02	.2061923E+04
.1018234E+05	.2036468E+07	.9331200E+07	.3165000E+00
CASE NUMBER	542	GROUP NUMBER	2
.3952847E+01	.7905694E+03	.2000000E+03	.3162278E+03
.3333333E+00	.1423025E+03	.4000000E+05	.1581139E+06
.5270463E+00	.7376961E+05	.3600000E+02	.1353827E+04
.1138420E+05	.2276840E+07	.9331200E+07	.3410000E+00
CASE NUMBER	543	GROUP NUMBER	2
.4192374E+01	.8384748E+03	.2000000E+03	.3224903E+03
.3333333E+00	.1509255E+03	.4000000E+05	.1676950E+08
.5374838E+00	.7523054E+05	.3600000E+02	.3056241E+04
.1160985E+05	.2221930E+07	.9331200E+07	.3464000E+00
CASE NUMBER	544	GROUP NUMBER	2
.4436553E+01	.8873105E+03	.2000000E+03	.3286335E+03
.3333333E+00	.1597159E+03	.4000000E+05	.1774621E+05
.5477226E+00	.7666363E+05	.3600000E+02	.3234247E+04
.1183081E+05	.2366161E+07	.9331200E+07	.3519000E+00

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CASE NUMBER	545	GROUP NUMBER	2				
.4685296E+01	.9370592E+03	.2000000E+03	.3346640E+03	.1673320E+01	.1561765E+01	.6023952E+02	.7290000E+03
.3333333E+00	.1686707E+03	.4000000E+05	.1874118E+08	.4665600E+05	.1200000E+02	.2916000E+08	.6666667E+02
.5577734E+00	.7807042E+05	.3600000E+02	.3415581E+04	.3373413E+05	.1458000E+06	.5746826E+06	.2185972E+06
.1204790E+05	.2409581E+07	.9331200E+07	.3577000E+00				
CASE NUMBER	546	GROUP NUMBER	2				
.4938522E+01	.9877044E+03	.2000000E+03	.3405877E+03	.1702939E+01	.1646174E+01	.6130579E+02	.7290000E+03
.3333333E+00	.1777868E+03	.4000000E+05	.1975409E+06	.4665600E+05	.1200000E+02	.2916000E+08	.6666667E+02
.5676462E+00	.7945231E+05	.3600000E+02	.3600183E+04	.3555736E+05	.1458000E+06	.7111472E+07	.2304117E+06
.1226116E+05	.2452232E+07	.9331200E+07	.3638000E+00				
CASE NUMBER	547	GROUP NUMBER	2				
0.	0.	.2000000E+030.	0.	0.	0.	.1000000E+04	
.3162278E+000.	0.	.4000000E+050.	0.	.4665600E+05	.1138420E+02	.4000000E+08	.6324555E+02
0.	0.	.3600000E+020.	0.	0.	.2000000E+060.	0.	
0.	0.	.9331200E+07	.2479000E+00				
CASE NUMBER	548	GROUP NUMBER	2				
.3535534E+00	.7071068E+02	.2000000E+03	.1414214E+03	.7071068E+00	.1118034E+00	.2545584E+02	.1000000E+04
.3162278E+00	.1272792E+02	.4000000E+05	.1414214E+05	.4665600E+05	.1138420E+02	.4000000E+08	.6324555E+02
.2236068E+00	.3299077E+05	.3600000E+02	.3535534E+03	.2545584E+04	.2000000E+06	.5091169E+06	.1649539E+05
.5091169E+04	.1018234E+07	.9331200E+07	.2625000E+00				
CASE NUMBER	549	GROUP NUMBER	2				
.1000000E+01	.2000000E+03	.2000000E+03	.2000000E+03	.1000000E+01	.3162278E+00	.3600000E+02	.1000000E+04
.3162278E+00	.3600000E+02	.4000000E+05	.4000000E+05	.4665600E+05	.1138420E+02	.4000000E+08	.6324555E+02
.3162278E+00	.4665600E+05	.3600000E+02	.1000000E+04	.7200000E+04	.2000000E+06	.1440000E+07	.4665600E+05
.7200000E+04	.1440000E+07	.9331200E+07	.2809000E+00				
CASE NUMBER	550	GROUP NUMBER	2				
.1837117E+01	.3674235E+03	.2000000E+03	.2449490E+03	.1224745E+01	.5809475E+00	.4409082E+02	.1000000E+04
.3162278E+00	.6613622E+02	.4000000E+05	.7348469E+05	.4665600E+05	.1138420E+02	.4000000E+08	.6324555E+02
.3872983E+00	.5714170E+05	.3600000E+02	.1837117E+04	.1322724E+05	.2000000E+06	.2645449E+07	.8571255E+05
.8818163E+04	.1763633E+07	.9331200E+07	.3018000E+00				
CASE NUMBER	551	GROUP NUMBER	2				
.2828427E+01	.5656854E+03	.2000000E+03	.2828427E+03	.1414214E+01	.8944272E+00	.5091169E+02	.1000000E+04
.3162278E+00	.1018234E+03	.4000000E+05	.1131371E+06	.4665600E+05	.1138420E+02	.4000000E+08	.6324555E+02
.5099020E+00	.7523054E+05	.3600000E+02	.4192374E+04	.2036468E+05	.2000000E+06	.4072935E+07	.1319631E+06
.1160965E+05	.2321930E+07	.9331200E+07	.3575000E+00				
CASE NUMBER	552	GROUP NUMBER	2				
.3952847E+01	.7905694E+03	.2000000E+03	.3162278E+03	.1581139E+01	.1250000E+01	.5692100E+02	.1000000E+04
.3162278E+00	.1423025E+03	.4000000E+05	.1581139E+06	.4665600E+05	.1138420E+02	.4000000E+08	.6324555E+02
.5000000E+00	.7376961E+05	.3600000E+02	.3952847E+04	.2846050E+05	.2000000E+06	.5692100E+07	.1844240E+06
.1138420E+05	.2276840E+07	.9331200E+07	.3517000E+00				

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TRANSGENERATED  
DATA INPUT

CASE NUMBER	553	GROUP NUMBER	2				
.4192374E+01	.8384748E+03	.2000000E+03	.3224903E+03	.1612452E+01	.1325745E+01	.5804826E+02	.1000000E+04
.3162278E+00	.1509255E+03	.4000000E+05	.1676950E+06	.4665600E+05	.1138420E+02	.4000000E+08	.6324555E+02
.5099020E+00	.7523054E+05	.3600000E+02	.4192374E+04	.2018509E+05	.2000000E+06	.6037019E+07	.1955994E+06
.1160965E+05	.2321930E+07	.9331200E+07	.3575000E+00				
CASE NUMBER	554	GROUP NUMBER	2				
0.	0.	.2000000E+030.	0.	0.	0.	.1728000E+04	
.2886751E+000.	0.	.4000000E+050.	0.	.4665600E+05	.1039230E+02	.6912000E+08	.5773503E+02
0.	0.	.3600000E+020.	0.	0.	.3456000E+060.	0.	
0.	0.	.9331200E+07	.2564000E+00				
CASE NUMBER	555	GROUP NUMBER	2				
.3535534E+00	.7071068E+02	.2000000E+03	.1414214E+03	.7071068E+00	.1020621E+00	.2545584E+02	.1728000E+04
.2886751E+00	.1272792E+02	.4000000E+05	.1414214E+05	.4665600E+05	.1039230E+02	.6912000E+08	.5773503E+02
.2041241E+00	.3299077E+05	.3600000E+02	.6109403E+03	.2545584E+04	.3456000E+06	.5091169E+06	.1649539E+05
.5091169E+04	.1018234E+07	.9331200E+07	.2736000E+00				
CASE NUMBER	556	GROUP NUMBER	2				
.1000000E+01	.2000000E+03	.2000000E+03	.2000000E+03	.1000000E+01	.2886751E+00	.3600000E+02	.1728000E+04
.2886751E+00	.3600000E+02	.4000000E+05	.4000000E+05	.4665600E+05	.1039230E+02	.6912000E+08	.5773503E+02
.2886751E+00	.4665600E+05	.3600000E+02	.1728000E+04	.7200000E+04	.3456000E+06	.1440000E+07	.4665600E+05
.7200000E+04	.1440000E+07	.9331200E+07	.2943000E+00				
CASE NUMBER	557	GROUP NUMBER	2				
.1837117E+01	.3674235E+03	.2000000E+03	.2449490E+03	.1224745E+01	.5303301E+00	.4409082E+02	.1728000E+04
.2886751E+00	.6613622E+02	.4000000E+05	.7348469E+05	.4665600E+05	.1039230E+02	.6912000E+08	.5773503E+02
.3535534E+00	.7514170E+05	.3600000E+02	.3174539E+04	.1322724E+05	.3456000E+06	.2645449E+07	.8571255E+05
.8818163E+04	.1763633E+07	.9331200E+07	.3178000E+00				
CASE NUMBER	558	GROUP NUMBER	2				
.2023858E+01	.4047715E+03	.2000000E+03	.2529822E+03	.1264911E+01	.5842374E+00	.4553680E+02	.1728000E+04
.2886751E+00	.7285888E+02	.4000000E+05	.8095431E+05	.4665600E+05	.1039230E+02	.6912000E+08	.5773503E+02
.3651484E+00	.5901569E+05	.3600000E+02	.3497226E+04	.1457178E+05	.3456000E+06	.2914355E+07	.9442510E+05
.9107360E+04	.1821472E+07	.9331200E+07	.3227000E+00				
CASE NUMBER	559	GROUP NUMBER	2				
.2216529E+01	.4433058E+03	.2000000E+03	.2607681E+03	.1303840E+01	.6398568E+00	.4693826E+02	.1728000E+04
.2886751E+00	.7979504E+02	.4000000E+05	.8866115E+05	.4665600E+05	.1039230E+02	.6912000E+08	.5773503E+02
.3763863E+00	.6083198E+05	.3600000E+02	.3830162E+04	.1595901E+05	.3456000E+06	.3191801E+07	.1034144E+06
.9387651E+04	.1877530E+07	.9331200E+07	.3278000E+00				
CASE NUMBER	560	GROUP NUMBER	2				
.2414953E+01	.4829907E+03	.2000000E+03	.2683282E+03	.1341641E+01	.6971370E+00	.4829907E+02	.1728000E+04
.2886751E+00	.8693332E+02	.4000000E+05	.9659814E+05	.4665600E+05	.1039230E+02	.6912000E+08	.5773503E+02
.3872983E+00	.6259559E+05	.3600000E+02	.4173040E+04	.1738766E+05	.3456000E+06	.3477533E+07	.1126721E+06
.9659814E+04	.1931963E+07	.9331200E+07	.3328000E+00				

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## DATA INPUT

CASE NUMBER 561 GROUP NUMBER 2  
.2618969E+01 .5237939E+03 .2000000E+03 .2756810E+03 .1378405E+01 .7560133E+00 .4962258E+02 .1728000E+04  
.2886751E+00 .9428289E+02 .4000000E+05 .1047588E+06 .4665600E+05 .1039230E+02 .6912000E+08 .5773503E+02  
.3979112E+00 .6431088E+05 .3600000E+02 .4525579E+04 .1885688E+05 .3456000E+06 .3771316E+07 .1221906E+08  
.9924515E+04 .1894903E+07 .9331200E+07 .3379000E+00

CASE NUMBER 562 GROUP NUMBER 2  
.2828427E+01 .5658854E+03 .2000000E+03 .2828427E+03 .1414214E+01 .8164966E+00 .5091169E+02 .1728000E+04  
.2886751E+00 .1018234E+03 .4000000E+05 .1131371E+06 .4665600E+05 .1039230E+02 .6912000E+08 .5773503E+02  
.4082483E+00 .6598155E+05 .3600000E+02 .4887522E+04 .2036468E+05 .3456000E+06 .4072935E+07 .1319631E+06  
.1018234E+05 .2036468E+07 .9331200E+07 .3432000E+00

CASE NUMBER 563 GROUP NUMBER 2  
0. 0. 0. 0. 0. 0. 0. 0.  
.2626129E+00 .4000000E+050 .4665600E+05 .9454063E+01 .1219450E+09 .5252257E+02  
0. 0. 0. 0. 0. 0. 0. 0.  
0. 0. 0. 0. 0. 0. 0. 0.  
.3331200E+07 .2675000E+00

CASE NUMBER 564 GROUP NUMBER 2  
.3535534E+00 .7071068E+02 .2000000E+03 .1414214E+03 .7071068E+00 .9284767E+01 .2545584E+02 .3048625E+04  
.2626129E+00 .1272792E+02 .4000000E+05 .1414214E+05 .4665600E+05 .9454063E+01 .1219450E+09 .5252257E+02  
.1856953E+00 .3299077E+05 .3600000E+02 .1077852E+04 .2545584E+04 .6097250E+06 .5091169E+06 .1649539E+05  
.5091169E+04 .1018234E+07 .9331200E+07 .2875000E+00

CASE NUMBER 565 GROUP NUMBER 2  
.1000000E+01 .2000000E+03 .2000000E+03 .2000000E+03 .1000000E+01 .2626129E+00 .3600000E+02 .3048625E+04  
.2626129E+00 .3600000E+02 .4000000E+05 .4000000E+05 .4665600E+05 .9454063E+01 .1219450E+09 .5252257E+02  
.2626129E+00 .4665600E+05 .3600000E+02 .3048625E+04 .7200000E+04 .6097250E+06 .1440000E+07 .4665600E+05  
.7200000E+04 .1440000E+07 .9331200E+07 .3115000E+00

CASE NUMBER 566 GROUP NUMBER 2  
.1153690E+01 .2307379E+03 .2000000E+03 .2097618E+03 .1048809E+01 .3029738E+00 .3775712E+02 .3048625E+04  
.2626129E+00 .4153283E+02 .4000000E+05 .4614759E+05 .4665600E+05 .9454063E+01 .1219450E+09 .5252257E+02  
.2754307E+00 .4893323E+05 .3600000E+02 .3517167E+04 .8206566E+04 .6097250E+06 .1661313E+07 .5382655E+05  
.7551424E+04 .1510285E+07 .9331200E+07 .3162000E+00

CASE NUMBER 567 GROUP NUMBER 2  
.1314534E+01 .2629068E+03 .2000000E+03 .2190890E+03 .1095445E+01 .3452136E+00 .3943602E+02 .3048625E+04  
.2626129E+00 .4732323E+02 .4000000E+05 .5258137E+05 .4665600E+05 .9454063E+01 .1219450E+09 .5252257E+02  
.2876780E+00 .5110909E+05 .3600000E+02 .4007522E+04 .9484646E+04 .6097250E+06 .1892929E+07 .6133090E+05  
.7887205E+04 .1577441E+07 .9331200E+07 .3211000E+00

CASE NUMBER 568 GROUP NUMBER 2  
.1482228E+01 .2984456E+03 .2000000E+03 .2280351E+03 .1140175E+01 .3892522E+00 .4104632E+02 .3048625E+04  
.2626129E+00 .5336021E+02 .4000000E+05 .5928912E+05 .4665600E+05 .9454063E+01 .1219450E+09 .5252257E+02  
.2994247E+00 .5319602E+05 .3600000E+02 .4518757E+04 .1067204E+05 .6097250E+06 .2134408E+07 .6915483E+05  
.8209263E+04 .1641853E+07 .9331200E+07 .3260000E+00

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## TRANSGENERATED

## DATA INPUT

CASE NUMBER 569 GROUP NUMBER 1  
0. 0. 0. 0. 0. 0. 0. 0.  
.3779645E+00 .2500000E+040 .5832000E+04 .6803361E+01 .8575000E+06 .1889822E+02  
0. 0. 0. 0. 0. 0. 0. 0.  
0. 0. 0. 0. 0. 0. 0. 0.  
.2916000E+06 .3156000E+00

CASE NUMBER 570 GROUP NUMBER 1  
.386559E+00 .1993280E+02 .5000000E+02 .3679900E+02 .7358801E+00 .1506778E+00 .1324764E+02 .3430000E+03  
.3779645E+00 .7175806E+01 .2500000E+04 .9966398E+03 .5832000E+04 .6803361E+01 .8575000E+06 .1889822E+02  
.2781743E+00 .4292236E+04 .1800000E+02 .1367390E+03 .3587903E+03 .1715000E+05 .1793952E+05 .2324961E+04  
.6623821E+03 .3311910E+05 .2916000E+06 .3465000E+00

CASE NUMBER 571 GROUP NUMBER 1  
.1054047E+01 .5270235E+02 .5000000E+02 .5088502E+02 .1017700E+01 .3983923E+00 .1831861E+02 .3430000E+03  
.3779645E+00 .1897285E+02 .2500000E+04 .2635117E+04 .5832000E+04 .6803361E+01 .8575000E+06 .1889822E+02  
.3846546E+00 .5935229E+04 .1800000E+02 .3615381E+03 .9486423E+03 .1715000E+05 .4743211E+05 .6147202E+04  
.9159304E+03 .4579652E+05 .2916000E+06 .3750000E+00

CASE NUMBER 572 GROUP NUMBER 1  
.1837117E+01 .9185587E+02 .5000000E+02 .6123724E+02 .1224745E+01 .6943651E+00 .2204541E+02 .3430000E+03  
.3779645E+00 .3306811E+02 .2500000E+04 .4592793E+04 .5832000E+04 .6803361E+01 .8575000E+06 .1889822E+02  
.4629100E+00 .7142712E+04 .1800000E+02 .6301312E+03 .1653406E+04 .1715000E+05 .8267028E+05 .1071407E+05  
.1102270E+04 .5511352E+05 .2916000E+06 .3985000E+00

CASE NUMBER 573 GROUP NUMBER 1  
.2828427E+01 .1414214E+03 .5000000E+02 .7071068E+02 .1414214E+01 .1069045E+01 .2545584E+02 .3430000E+03  
.3779645E+00 .5091169E+02 .2500000E+04 .7071068E+04 .5832000E+04 .6803361E+01 .8575000E+06 .1889822E+02  
.5345225E+00 .8247693E+04 .1800000E+02 .9701505E+03 .2545584E+04 .1715000E+05 .1272792E+06 .1649539E+05  
.1272792E+04 .6363961E+05 .2916000E+06 .4116000E+00

CASE NUMBER 574 GROUP NUMBER 1  
.3552847E+01 .1976424E+03 .5000000E+02 .7905694E+02 .1581139E+01 .1494036E+01 .2846050E+02 .3430000E+03  
.3779645E+00 .7115125E+02 .2500000E+04 .9482118E+04 .5832000E+04 .6803361E+01 .8575000E+06 .1889822E+02  
.5976143E+00 .9221202E+04 .1800000E+02 .1355827E+04 .3557562E+04 .1715000E+05 .1778781E+06 .2305300E+05  
.1423025E+04 .7115125E+05 .2916000E+06 .4374000E+00

CASE NUMBER 575 GROUP NUMBER 1  
.5196152E+01 .2598076E+03 .5000000E+02 .8660254E+02 .1732051E+01 .1963961E+01 .3117691E+02 .3430000E+03  
.3779645E+00 .9353074E+02 .2500000E+04 .1299038E+05 .5832000E+04 .6803361E+01 .8575000E+06 .1889822E+02  
.6546537E+00 .1010132E+05 .1800000E+02 .1782280E+04 .4676537E+04 .1715000E+05 .2338269E+06 .2030396E+05  
.1558846E+04 .7794229E+05 .2916000E+06 .4734000E+00

CASE NUMBER 576 GROUP NUMBER 1  
.6547900E+01 .3273950E+03 .5000000E+02 .9354143E+02 .1870829E+01 .2474874E+01 .3367492E+02 .3430000E+03  
.3779645E+00 .1178622E+03 .2500000E+04 .1636975E+05 .5832000E+04 .6803361E+01 .8575000E+06 .1889822E+02  
.7071068E+00 .1091067E+05 .1800000E+02 .2245930E+04 .5893110E+04 .1715000E+05 .2946555E+06 .3618736E+05  
.1683746E+04 .8418729E+05 .2916000E+06 .5211000E+00





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## DATA INPUT

CASE NUMBER 593 GROUP NUMBER 1  
.7407564E+01-.3703782E+03-.5000000E+02-.9746794E+02-.1949359E+01-.2469188E+01-.3508846E+02-.7290000E+03  
.3333333E+00-.1333331E+03-.2500000E+04-.1851891E+05-.5832000E+04-.6000000E+01-.1822500E+07-.1666667E+02  
.6497863E+00-.1136866E+05-.1800000E+02-.5400114E+04-.6666807E+04-.3645000E+05-.3333404E+06-.4320091E+05  
.1754423E+04-.8772115E+05-.2916000E+06-.5507000E+00  
CASE NUMBER 594 GROUP NUMBER 1  
.7701883E+01-.3850941E+03-.5000000E+02-.9874209E+02-.1874842E+01-.2567294E+01-.3554715E+02-.7290000E+03  
.3333333E+00-.1386339E+03-.2500000E+04-.1925471E+05-.5832000E+04-.6000000E+01-.1822500E+07-.1666667E+02  
.6582806E+00-.1151728E+05-.1800000E+02-.5614673E+04-.6931695E+04-.3645000E+05-.3465847E+06-.4491738E+05  
.1777358E+04-.8886788E+05-.2916000E+06-.5555000E+00  
CASE NUMBER 595 GROUP NUMBER 1  
.8000000E+01-.4000000E+03-.5000000E+02-.1000000E+03-.2000000E+01-.2666667E+01-.3600000E+02-.7290000E+03  
.3333333E+00-.1440000E+03-.2500000E+04-.2000000E+05-.5832000E+04-.6000000E+01-.1822500E+07-.1666667E+02  
.6666667E+00-.1166400E+05-.1800000E+02-.5832000E+04-.7200000E+04-.3645000E+05-.3600000E+06-.4665600E+05  
.1800000E+04-.3000000E+05-.2916000E+06-.5611000E+00  
CASE NUMBER 596 GROUP NUMBER 1  
0. 0. -5000000E+020. 0. 0. 0. 1000000E+04  
.3162278E+000. 2500000E+040. -5832000E+04-.5692100E+01. 2500000E+07-.1581139E+02  
0. 0. -1800000E+020. 0. 0. 0. 0.  
0. 0. 2916000E+06. 3200000E+00  
CASE NUMBER 597 GROUP NUMBER 1  
.3535534E+00-.1767767E+02-.5000000E+02-.3535534E+02-.7071068E+00-.1118034E+00-.1272792E+02-.1000000E+04  
.3162278E+00-.6363961E+01-.2500000E+04-.8838835E+03-.5832000E+04-.5692100E+01-.2500000E+07-.1581139E+02  
.2236068E+00-.4123847E+04-.1800000E+02-.3535534E+03-.3181981E+03-.5000000E+05-.1590990E+05-.2061923E+04  
.6363961E+03-.3181981E+05-.2916000E+06-.3545000E+00  
CASE NUMBER 598 GROUP NUMBER 1  
.1000000E+01-.5000000E+02-.5000000E+02-.5000000E+02-.1000000E+01-.3162278E+00-.1800000E+02-.1000000E+04  
.3162278E+00-.1800000E+02-.2500000E+04-.2500000E+04-.5832000E+04-.5692100E+01-.2500000E+07-.1581139E+02  
.3162278E+00-.5832000E+04-.1800000E+02-.1000000E+04-.8000000E+03-.5000000E+05-.4500000E+05-.5832000E+04  
.9000000E+03-.4500000E+05-.2916000E+06-.3882000E+00  
CASE NUMBER 599 GROUP NUMBER 1  
.1837117E+01-.9185587E+02-.5000000E+02-.6123724E+02-.1224745E+01-.5809475E+00-.2204541E+02-.1000000E+04  
.3162278E+00-.3306811E+02-.2500000E+04-.4592793E+04-.5832000E+04-.5692100E+01-.2500000E+07-.1581139E+02  
.3872983E+00-.7142712E+04-.1800000E+02-.1837117E+04-.1653406E+04-.5000000E+05-.8267028E+05-.1071407E+05  
.1102270E+04-.5511352E+05-.2916000E+06-.4170000E+00  
CASE NUMBER 600 GROUP NUMBER 1  
.2828427E+01-.1414214E+03-.5000000E+02-.7071068E+02-.1414214E+01-.8944272E+00-.2545584E+02-.1000000E+04  
.3162278E+00-.5091189E+02-.2500000E+04-.7071068E+04-.5832000E+04-.5692100E+01-.2500000E+07-.1581139E+02  
.4472136E+00-.8247693E+04-.1800000E+02-.2828427E+04-.2545584E+04-.5000000E+05-.1272792E+06-.1649339E+05  
.1272792E+04-.6363961E+05-.2916000E+06-.4487000E+00

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## TRANSGENERATED

## DATA INPUT

CASE NUMBER 601 GROUP NUMBER 1  
.3952847E+01-.1978424E+03-.5000000E+02-.7905694E+02-.1581139E+01-.1250000E+01-.2846050E+02-.1000000E+04  
.3162278E+00-.7115125E+02-.2500000E+04-.9882118E+04-.5832000E+04-.5692100E+01-.2500000E+07-.1581139E+02  
.5000000E+00-.9221202E+04-.1800000E+02-.3952847E+04-.3557562E+04-.5000000E+05-.1778781E+06-.2305300E+05  
.1423025E+04-.7115125E+05-.2916000E+06-.4808000E+00  
CASE NUMBER 602 GROUP NUMBER 1  
.5196152E+01-.2598076E+03-.5000000E+02-.8660254E+02-.1732051E+01-.1643168E+01-.3117891E+02-.1000000E+04  
.3162278E+00-.9352074E+02-.2500000E+04-.1299038E+05-.5832000E+04-.5692100E+01-.2500000E+07-.1581139E+02  
.5477226E+00-.1010132E+05-.1800000E+02-.5196152E+04-.4676537E+04-.5000000E+05-.2338269E+06-.3030396E+05  
.1558846E+04-.7794229E+05-.2916000E+06-.5217000E+00  
CASE NUMBER 603 GROUP NUMBER 1  
.6547900E+01-.3273950E+03-.5000000E+02-.9354143E+02-.1870828E+01-.2070628E+01-.3367492E+02-.1000000E+04  
.3162278E+00-.1178422E+03-.2500000E+04-.1626875E+05-.5832000E+04-.5692100E+01-.2500000E+07-.1581139E+02  
.5916080E+00-.1091067E+05-.1800000E+02-.6547900E+04-.5893110E+04-.5000000E+05-.2946555E+06-.3818736E+05  
.1683746E+04-.8418729E+05-.2916000E+06-.5500000E+00  
CASE NUMBER 604 GROUP NUMBER 1  
.6830520E+01-.3415260E+03-.5000000E+02-.9486833E+02-.1897367E+01-.2160000E+01-.3415260E+02-.1000000E+04  
.3162278E+00-.1229494E+03-.2500000E+04-.1707630E+05-.5832000E+04-.5692100E+01-.2500000E+07-.1581139E+02  
.6000000E+00-.1106544E+05-.1800000E+02-.6830520E+04-.6147468E+04-.5000000E+05-.3073734E+06-.3883559E+05  
.1707630E+04-.8538150E+05-.2916000E+06-.5509000E+00  
CASE NUMBER 605 GROUP NUMBER 1  
.7117092E+01-.3558546E+03-.5000000E+02-.9617692E+02-.1923538E+01-.2250622E+01-.3462369E+02-.1000000E+04  
.3162278E+00-.1281077E+03-.2500000E+04-.1779273E+05-.5832000E+04-.5692100E+01-.2500000E+07-.1581139E+02  
.6082763E+00-.1121808E+05-.1800000E+02-.7117092E+04-.6405383E+04-.5000000E+05-.3202691E+06-.4150688E+05  
.1731185E+04-.8655923E+05-.2916000E+06-.5566000E+00  
CASE NUMBER 606 GROUP NUMBER 1  
.7407564E+01-.3703782E+03-.5000000E+02-.9746794E+02-.1949359E+01-.2342477E+01-.3508846E+02-.1000000E+04  
.3162278E+00-.1333331E+03-.2500000E+04-.1851891E+05-.5832000E+04-.5692100E+01-.2500000E+07-.1581139E+02  
.6164414E+00-.1136866E+05-.1800000E+02-.7407564E+04-.6666807E+04-.5000000E+05-.3333404E+06-.4320091E+05  
.1754423E+04-.8772115E+05-.2916000E+06-.5629000E+00  
CASE NUMBER 607 GROUP NUMBER 1  
0. 0. -5000000E+020. 0. 0. 0. 1728000E+04  
.2886751E+000. 2500000E+040. -5832000E+04-.5196152E+01. 4320000E+07-.1443376E+02  
0. 0. -1800000E+020. 0. 0. 0. 0.  
0. 0. 2916000E+06. 3346000E+00  
CASE NUMBER 608 GROUP NUMBER 1  
.3535534E+00-.1767767E+02-.5000000E+02-.3535534E+02-.7071068E+00-.1020621E+00-.1272792E+02-.1000000E+04  
.2886751E+00-.6363961E+01-.2500000E+04-.8838835E+03-.5832000E+04-.5196152E+01-.4320000E+07-.1443376E+02  
.2041241E+00-.4123847E+04-.1800000E+02-.6109403E+03-.3181981E+03-.8640000E+05-.1590990E+05-.2061923E+04  
.6363961E+03-.3181981E+05-.2916000E+06-.3707000E+00

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## TRANSGENERATED

## DATA INPUT

CASE NUMBER 605 GROUP NUMBER 1  
.1000000E+01-.5000000E+02-.5000000E+02-.5000000E+02-.1000000E+01-.2886751E+00-.1800000E+02-.1728000E+04  
.2886751E+00-.1800000E+02-.2500000E+04-.2500000E+04-.5832000E+04-.5196152E+01-.4320000E+07-.1443376E+02  
.2886751E+00-.5832000E+04-.1800000E+02-.1728000E+04-.9000000E+03-.8640000E+05-.4500000E+05-.5832000E+04  
.9000000E+03-.4500000E+05-.2916000E+06-.4078000E+00

CASE NUMBER 610 GROUP NUMBER 1  
.1837117E+01-.9185587E+02-.5000000E+02-.6123724E+02-.1224745E+01-.5303301E+00-.2204541E+02-.1728000E+04  
.2886751E+00-.3306811E+02-.2500000E+04-.4592793E+04-.5832000E+04-.5196152E+01-.4320000E+07-.1443376E+02  
.3535534E+00-.7142712E+04-.1800000E+02-.3174539E+04-.1653406E+04-.8640000E+05-.8267028E+05-.1071407E+05  
.1102270E+04-.5511352E+05-.2916000E+06-.4378000E+00

CASE NUMBER 611 GROUP NUMBER 1  
.2828427E+01-.1414214E+03-.5000000E+02-.7071068E+02-.1414214E+01-.8164966E+00-.2545584E+02-.1728000E+04  
.2886751E+00-.5091169E+02-.2500000E+04-.7071068E+04-.5832000E+04-.5196152E+01-.4320000E+07-.1443376E+02  
.4082483E+00-.8247693E+04-.1800000E+02-.4887522E+04-.2545584E+04-.8640000E+05-.1272792E+06-.1649539E+05  
.1272792E+06-.6363961E+05-.2916000E+06-.4672000E+00

CASE NUMBER 612 GROUP NUMBER 1  
.3952847E+01-.1978424E+03-.5000000E+02-.7905694E+02-.1581139E+01-.1141089E+01-.2846050E+02-.1728000E+04  
.2886751E+00-.7115125E+02-.2500000E+04-.8882118E+04-.5832000E+04-.5196152E+01-.4320000E+07-.1443376E+02  
.4564355E+00-.9221202E+04-.1800000E+02-.6830520E+04-.3557562E+04-.8640000E+05-.1778781E+06-.2305300E+05  
.1423025E+04-.7115125E+05-.2916000E+06-.5026000E+00

CASE NUMBER 613 GROUP NUMBER 1  
.5196152E+01-.2598076E+03-.5000000E+02-.8660254E+02-.1732051E+01-.1500000E+01-.3117691E+02-.1728000E+04  
.2886751E+00-.9353074E+02-.2500000E+04-.1299038E+05-.5832000E+04-.5196152E+01-.4320000E+07-.1443376E+02  
.5000000E+00-.1010132E+05-.1800000E+02-.8978951E+04-.4676537E+04-.8640000E+05-.2338269E+06-.3030396E+05  
.1558846E+04-.7794229E+05-.2916000E+06-.5488000E+00

CASE NUMBER 614 GROUP NUMBER 1  
.5458113E+01-.2729057E+03-.5000000E+02-.8803408E+02-.1760682E+01-.1575622E+01-.3169227E+02-.1728000E+04  
.2886751E+00-.9824604E+02-.2500000E+04-.1364528E+05-.5832000E+04-.5196152E+01-.4320000E+07-.1443376E+02  
.5082650E+00-.1026830E+05-.1800000E+02-.9431620E+04-.4912302E+04-.8640000E+05-.2456151E+06-.3183172E+05  
.1584614E+04-.7923068E+05-.2916000E+06-.5489000E+00

CASE NUMBER 615 GROUP NUMBER 1  
.5724334E+01-.2862167E+03-.5000000E+02-.8944272E+02-.1788854E+01-.1652473E+01-.3219938E+02-.1728000E+04  
.2886751E+00-.1030380E+02-.2500000E+04-.1431084E+05-.5832000E+04-.5196152E+01-.4320000E+07-.1443376E+02  
.5163978E+00-.1043280E+05-.1800000E+02-.8991849E+04-.5151901E+04-.8640000E+05-.2575950E+06-.3338432E+05  
.1609969E+04-.8049845E+05-.2916000E+06-.5507000E+00

CASE NUMBER 616 GROUP NUMBER 1  
.5994748E+01-.2987374E+03-.5000000E+02-.9082951E+02-.1816590E+01-.1730535E+01-.3269862E+02-.1728000E+04  
.2886751E+00-.1075055E+02-.2500000E+04-.1498687E+05-.5832000E+04-.5196152E+01-.4320000E+07-.1443376E+02  
.5244044E+00-.1058435E+05-.1800000E+02-.1035892E+05-.5395273E+04-.8640000E+05-.2697636E+06-.3496137E+05  
.1634931E+04-.8174656E+05-.2916000E+06-.5547000E+00

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## TRANSGENERATED

## DATA INPUT

CASE NUMBER 617 GROUP NUMBER 1  
.8269290E+01-.3134645E+03-.5000000E+02-.9219544E+02-.1843909E+01-.1809788E+01-.3319036E+02-.1728000E+04  
.2886751E+00-.1128472E+03-.2500000E+04-.1567323E+05-.5832000E+04-.5196152E+01-.4320000E+07-.1443376E+02  
.5322906E+00-.1075368E+05-.1800000E+02-.1083233E+05-.5642361E+04-.8640000E+05-.2821181E+06-.3656250E+05  
.1659518E+04-.8297590E+05-.2916000E+06-.5608000E+00

CASE NUMBER 618 GROUP NUMBER 1  
0. 0. -.5000000E+020. 0. 0. 0. .3048625E+04  
.2626129E+000. .2500000E+040. -.5832000E+04-.4727032E+01.7621562E+07-.1313064E+02  
0. 0. -.1800000E+020. 0. -.1524313E+060. 0.  
0. 0. .2916000E+06 .3455000E+00

CASE NUMBER 619 GROUP NUMBER 1  
.3535534E+00-.1767767E+02-.5000000E+02-.3535534E+02-.7071068E+00-.9284767E+01-.1272792E+02-.3048625E+04  
.2626129E+00-.6363961E+01-.2500000E+04-.8838835E+03-.5832000E+04-.4727032E+01.7621562E+07-.1313064E+02  
.1856953E+00-.4123847E+04-.1800000E+02-.1077852E+04-.3181981E+03-.1524313E+06-.1590990E+05-.2061923E+04  
.6363961E+03-.3181981E+05-.2916000E+06-.3857000E+00

CASE NUMBER 620 GROUP NUMBER 1  
.1000000E+01-.5000000E+02-.5000000E+02-.5000000E+02-.1000000E+01-.2626129E+00-.1800000E+02-.3048625E+04  
.2626129E+00-.1800000E+02-.2500000E+04-.2500000E+04-.5832000E+04-.4727032E+01.7621562E+07-.1313064E+02  
.2626129E+00-.5832000E+04-.1800000E+02-.3048625E+04-.9000000E+03-.1524313E+06-.4500000E+05-.5832000E+04  
.9000000E+03-.4500000E+05-.2916000E+06-.4254000E+00

CASE NUMBER 621 GROUP NUMBER 1  
.1750334E+01-.8751668E+02-.5000000E+02-.6025739E+02-.1205148E+01-.4596601E+00-.2169266E+02-.3048625E+04  
.2626129E+00-.3150601E+02-.2500000E+04-.4375834E+04-.5832000E+04-.4727032E+01.7621562E+07-.1313064E+02  
.3164873E+00-.7028421E+04-.1800000E+02-.5336111E+04-.1575300E+04-.1524313E+06-.7876501E+05-.1020795E+05  
.1084633E+04-.5423165E+05-.2916000E+06-.4555000E+00

CASE NUMBER 622 GROUP NUMBER 1  
.2828427E+01-.1414214E+03-.5000000E+02-.7071068E+02-.1414214E+01-.7427814E+00-.2545584E+02-.3048625E+04  
.2626129E+00-.5091169E+02-.2500000E+04-.7071068E+04-.5832000E+04-.4727032E+01.7621562E+07-.1313064E+02  
.3713907E+00-.8247693E+04-.1800000E+02-.8622814E+04-.2545584E+04-.1524313E+06-.1272792E+06-.1649539E+05  
.1272792E+06-.6363961E+05-.2916000E+06-.4925000E+00

CASE NUMBER 623 GROUP NUMBER 1  
.3952847E+01-.1978424E+03-.5000000E+02-.7905694E+02-.1581139E+01-.1038068E+01-.2846050E+02-.3048625E+04  
.2626129E+00-.7115125E+02-.2500000E+04-.8882118E+04-.5832000E+04-.4727032E+01.7621562E+07-.1313064E+02  
.4152274E+00-.9221202E+04-.1800000E+02-.1205075E+05-.3557562E+04-.1524313E+06-.1778781E+06-.2305300E+05  
.1423025E+04-.7115125E+05-.2916000E+06-.5342000E+00

CASE NUMBER 624 GROUP NUMBER 1  
.4192374E+01-.2096187E+03-.5000000E+02-.8062258E+02-.1612452E+01-.1100971E+01-.2802413E+02-.3048625E+04  
.2626129E+00-.7546273E+02-.2500000E+04-.1048094E+05-.5832000E+04-.4727032E+01.7621562E+07-.1313064E+02  
.4234505E+00-.9403817E+04-.1800000E+02-.1278098E+05-.3773137E+04-.1524313E+06-.1886568E+06-.2444993E+05  
.1451206E+04-.7256032E+05-.2916000E+06-.5438000E+00

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CASE NUMBER      625                                GROUP NUMBER      1
.4436553E+01-.2218275E+03-.5000000E+02-.8215838E+02-.1543168E+01-.1165096E+01-.2957702E+02-.3048625E+04
.2626129E+00-.7985795E+02-.2500000E+04-.1109138E+05-.5832000E+04-.4727032E+01-.7621562E+07-.1313064E+02
.4315170E+00-.9582954E+04-.1800000E+02-.1352539E+05-.3992897E+04-.1524313E+06-.1996448E+06-.2587398E+05
.1478851E+04-.7394255E+05-.2916000E+06-.5494000E+00

CASE NUMBER      626                                GROUP NUMBER      1
.4685296E+01-.2342648E+03-.5000000E+02-.8366600E+02-.1673320E+01-.1230419E+01-.3011976E+02-.3048625E+04
.2626129E+00-.8433533E+02-.2500000E+04-.1171324E+05-.5832000E+04-.4727032E+01-.7621562E+07-.1313064E+02
.4394354E+00-.9758803E+04-.1800000E+02-.1428371E+05-.4216767E+04-.1524313E+06-.2108383E+06-.2732465E+05
.1505988E+00-.7529940E+05-.2916000E+06-.5501000E+00

CASE NUMBER      627                                GROUP NUMBER      1
0.0.0.0.0.0.0.0.3430000E+03
.3779645E+000.0.0.0.5832000E+04-.6803361E+010.0.0.
0.0.0.-1800000E+020.0.0.0.0.
0.0.0.0.2925000E+00

CASE NUMBER      628                                GROUP NUMBER      1
.3535584E+000.0.0.7071068E+00.1336306E+00-.1272792E+02.3430000E+03
.3779645E+00-.6363961E+010.0.-5832000E+04-.6803361E+010.0.0.
.2672612E+00-.4123847E+04-.1800000E+02.1212688E+030.0.0.-2061923E+04
0.0.0.0.3190000E+00

CASE NUMBER      629                                GROUP NUMBER      1
.1000000E+010.0.0.1000000E+01.3779645E+00.1800000E+02.3430000E+03
.3779645E+00.1800000E+020.0.-5832000E+04-.6803361E+010.0.0.
.3779645E+00.5832000E+04-.1800000E+02.3430000E+030.0.0.-5832000E+04
0.0.0.0.3473000E+00

CASE NUMBER      630                                GROUP NUMBER      1
.1739584E+010.0.0.1202676E+01.6575011E+00-.2164816E+02.3430000E+03
.3779645E+00-.3131252E+020.0.-5832000E+04-.6803361E+010.0.0.
.4545686E+00-.7014004E+04-.1800000E+02.5966774E+030.0.0.-1014526E+05
0.0.0.0.3665000E+00

CASE NUMBER      631                                GROUP NUMBER      1
.2828427E+010.0.0.1414214E+01.1069045E+01.2545584E+02.3430000E+03
.3779645E+00-.5091189E+020.0.-5832000E+04-.6803361E+010.0.0.
.5345225E+00-.8247693E+04-.1800000E+02.9701505E+030.0.0.-1649539E+05
0.0.0.0.3885000E+00

CASE NUMBER      632                                GROUP NUMBER      1
.4009451E+010.0.0.1588650E+01.1515430E+01.2859570E+02.3430000E+03
.3779645E+00-.7210711E+020.0.-5832000E+04-.6803361E+010.0.0.
.6004533E+00-.9265008E+04-.1800000E+02.1375242E+040.0.0.-2338312E+05
0.0.0.0.4140000E+00

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[illegible]

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## TRANSGENERATED

## DATA INPUT

CASE NUMBER	GROUP NUMBER	1
641	1	
.353534E+000.	0.	0.
.333333E+000.	0.	0.
.2357023E+000.	0.	0.
.4123847E+040.	1800000E+02	2577404E+030.
.3310000E+000.	0.	0.
642	1	
.1000000E+010.	0.	0.
.333333E+000.	0.	0.
.333333E+000.	0.	0.
.5832000E+040.	1800000E+02	7290000E+030.
.3601000E+000.	0.	0.
643	1	
.1837117E+010.	0.	0.
.333333E+000.	0.	0.
.4082483E+000.	0.	0.
.7142712E+040.	1800000E+02	1339259E+040.
.3867000E+000.	0.	0.
644	1	
.2828427E+010.	0.	0.
.333333E+000.	0.	0.
.4714045E+000.	0.	0.
.8247693E+040.	1800000E+02	2061923E+040.
.4112000E+000.	0.	0.
645	1	
.3952847E+010.	0.	0.
.333333E+000.	0.	0.
.5270463E+000.	0.	0.
.9221202E+040.	1800000E+02	2881626E+040.
.4354000E+000.	0.	0.
646	1	
.5196152E+010.	0.	0.
.333333E+000.	0.	0.
.5773503E+000.	0.	0.
.1010132E+050.	1800000E+02	3787995E+040.
.4665000E+000.	0.	0.
647	1	
.6547900E+010.	0.	0.
.333333E+000.	0.	0.
.6236096E+000.	0.	0.
.1091067E+050.	1800000E+02	4773419E+040.
.5086000E+000.	0.	0.
648	1	
.6830520E+010.	0.	0.
.333333E+000.	0.	0.
.6324555E+000.	0.	0.
.1106544E+050.	1800000E+02	4979449E+040.
.5182000E+000.	0.	0.

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## TRANSGENERATED

## DATA INPUT

CASE NUMBER	GROUP NUMBER	1
649	1	
.7117092E+010.	0.	0.
.333333E+000.	0.	0.
.6411795E+000.	0.	0.
.1121808E+050.	1800000E+02	5188360E+040.
.5259000E+000.	0.	0.
650	1	
.7407564E+010.	0.	0.
.333333E+000.	0.	0.
.6497863E+000.	0.	0.
.1136866E+050.	1800000E+02	5400114E+040.
.5328000E+000.	0.	0.
651	1	
.7701883E+010.	0.	0.
.333333E+000.	0.	0.
.6582806E+000.	0.	0.
.1151728E+050.	1800000E+02	5614673E+040.
.5402000E+000.	0.	0.
652	1	
.3162278E+000.	0.	0.
.3162278E+000.	0.	0.
.3162278E+000.	0.	0.
.5832000E+040.	1800000E+02	5692100E+010.
.5692100E+010.	0.	0.
653	1	
.353534E+000.	0.	0.
.3162278E+000.	0.	0.
.2236068E+000.	0.	0.
.4123847E+040.	1800000E+02	353534E+030.
.3393000E+000.	0.	0.
654	1	
.1000000E+010.	0.	0.
.3162278E+000.	0.	0.
.3162278E+000.	0.	0.
.5832000E+040.	1800000E+02	1000000E+040.
.3699000E+000.	0.	0.
655	1	
.1837117E+010.	0.	0.
.3162278E+000.	0.	0.
.3872983E+000.	0.	0.
.7142712E+040.	1800000E+02	1837117E+040.
.3959000E+000.	0.	0.
656	1	
.2828427E+010.	0.	0.
.3162278E+000.	0.	0.
.4472136E+000.	0.	0.
.8247693E+040.	1800000E+02	2828427E+040.
.4176000E+000.	0.	0.

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## TRANSGENERATED

## DATA INPUT

CASE NUMBER	GROUP NUMBER
657	1
.3952847E+010.	.1581139E+01 .1250000E+01-.2846050E+02 .1000000E+04
.3162278E+00-.7115125E+020.	.5832000E+04-.5692100E+010.
.5000000E+00-.9221202E+04-.1800000E+02 .3952847E+040.	.4460000E+00.
0.	.2305300E+05
0.	0.
658	1
.5196152E+010.	.1732051E+01 .1643168E+01-.3117691E+02 .1000000E+04
.3162278E+00-.9353074E+020.	.5832000E+04-.5692100E+010.
.5477225E+00-.1010132E+05-.1800000E+02 .5196152E+040.	.4797000E+00.
0.	.3030396E+05
0.	0.
659	1
.6547900E+010.	.1870829E+01 .2070628E+01-.3367492E+02 .1000000E+04
.3162278E+00-.1178622E+030.	.5832000E+04-.5692100E+010.
.5916080E+00-.1091067E+05-.1800000E+02 .6547900E+040.	.5273000E+00.
0.	.3818736E+05
0.	0.
660	1
.6830520E+010.	.1897367E+01 .2160000E+01-.3415260E+02 .1000000E+04
.3162278E+00-.1229494E+030.	.5832000E+04-.5692100E+010.
.6000000E+00-.1106544E+05-.1800000E+02 .6830520E+040.	.5343000E+00.
0.	.3983559E+05
0.	0.
661	1
.2886751E+000.	.1000000E+01 .2886751E+00-.1800000E+02 .1728000E+04
.0.	.5832000E+04-.5196152E+010.
.0.	.0.
.0.	.0.
0.	.1728000E+04
0.	0.
662	1
.3535534E+000.	.7071068E+00 .1020621E+00-.1272792E+02 .1728000E+04
.2886751E+00-.6363961E+010.	.5832000E+04-.5196152E+010.
.2041241E+00-.4123847E+04-.1800000E+02 .6109403E+030.	.3511000E+00.
0.	.2061923E+04
0.	0.
663	1
.1000000E+010.	.1000000E+01 .2886751E+00-.1800000E+02 .1728000E+04
.2886751E+00-.1800000E+020.	.5832000E+04-.5196152E+010.
.2886751E+00-.5832000E+04-.1800000E+02 .1728000E+040.	.3832000E+00.
0.	.5832000E+04
0.	0.
664	1
.1837117E+010.	.1224745E+01 .5303301E+00-.2204541E+02 .1728000E+04
.2886751E+00-.3306811E+020.	.5832000E+04-.5196152E+010.
.3535534E+00-.7142712E+04-.1800000E+02 .3174539E+040.	.4074000E+00.
0.	.1071407E+05
0.	0.

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## TRANSGENERATED

## DATA INPUT

CASE NUMBER	GROUP NUMBER
665	1
.228427E+010.	.1414214E+01 .8164966E+00-.2545584E+02 .1728000E+04
.2886751E+00-.5091169E+020.	.5832000E+04-.5196152E+010.
.4082483E+00-.8247693E+04-.1800000E+02 .4887522E+040.	.4343000E+00.
0.	.1648539E+05
0.	0.
666	1
.3952847E+010.	.1581139E+01 .1141089E+01-.2846050E+02 .1728000E+04
.2886751E+00-.7115125E+020.	.5832000E+04-.5196152E+010.
.4564355E+00-.9221202E+04-.1800000E+02 .6830520E+040.	.4667000E+00.
0.	.2305300E+05
0.	0.
667	1
.5196152E+010.	.1732051E+01 .1500000E+01-.3117691E+02 .1728000E+04
.2886751E+00-.9353074E+020.	.5832000E+04-.5196152E+010.
.5000000E+00-.1010132E+05-.1800000E+02 .8978951E+040.	.5107000E+00.
0.	.3030396E+05
0.	0.
668	1
.5458113E+010.	.1760682E+01 .1575622E+01-.3169227E+02 .1728000E+04
.2886751E+00-.9824604E+020.	.5832000E+04-.5196152E+010.
.5082650E+00-.1026830E+05-.1800000E+02 .8431620E+040.	.5196000E+00.
0.	.3183172E+05
0.	0.
669	1
.5724334E+010.	.1788854E+01 .1652473E+01-.3219938E+02 .1728000E+04
.2886751E+00-.1030380E+030.	.5832000E+04-.5196152E+010.
.5163978E+00-.1043260E+05-.1800000E+02 .9891849E+040.	.5286000E+00.
0.	.3338432E+05
0.	0.
670	1
.2626129E+000.	.0.
.0.	.0.
.0.	.0.
.0.	.0.
0.	.3048625E+04
0.	0.
671	1
.3535534E+000.	.7071068E+00 .9284767E+01-.1272792E+02 .3048625E+04
.2626129E+00-.6363961E+010.	.5832000E+04-.4727032E+010.
.1856953E+00-.4123847E+04-.1800000E+02 .1077852E+040.	.3621000E+00.
0.	.2061923E+04
0.	0.
672	1
.1000000E+010.	.1000000E+01 .2626129E+00-.1800000E+02 .3048625E+04
.2626129E+00-.1800000E+020.	.5832000E+04-.4727032E+010.
.2626129E+00-.5832000E+04-.1800000E+02 .3048625E+040.	.3975000E+00.
0.	.5832000E+04
0.	0.

FRIDAY, JUL 2, 1976

TRANSGENERATED  
DATA INPUT

CASE NUMBER	GROUP NUMBER	1
1837117E+01	1224745E+01	4824506E+00
2626129E+00	5832000E+04	4727032E+01
3216338E+00	7142712E+04	1800000E+02
0	5800682E+04	0
0	4247000E+00	0
2828427E+01	1414214E+01	7427814E+00
2626129E+00	5832000E+04	4727032E+01
3713907E+00	8247693E+04	1800000E+02
0	8622814E+04	0
0	4562000E+00	0
3952847E+01	1581139E+01	1038068E+01
2626129E+00	5832000E+04	4727032E+01
4152274E+00	9221202E+04	1800000E+02
0	1205075E+05	0
0	4940000E+00	0
4192374E+01	1612452E+01	1100971E+01
2626129E+00	5832000E+04	4727032E+01
4234505E+00	9403817E+04	1800000E+02
0	1278098E+05	0
0	5029000E+00	0
0	1000000E+03	0
3779645E+00	1000000E+05	5832000E+04
0	1800000E+02	6803361E+01
0	3430000E+07	3430000E+05
0	5832000E+06	2648000E+00
3535534E+00	3535534E+02	1000000E+03
3779645E+00	6363961E+01	1000000E+05
2626129E+00	4123847E+04	1800000E+02
1272792E+04	1272792E+06	5832000E+06
1000000E+01	1000000E+03	1000000E+05
3779645E+00	1800000E+02	1000000E+05
3779645E+00	5832000E+04	1800000E+02
1800000E+04	1800000E+06	5832000E+06
1837117E+01	1837117E+03	1000000E+03
3779645E+00	3306811E+02	1000000E+05
4629100E+00	7142712E+04	1800000E+02
2204541E+04	2204541E+06	5832000E+06

FRIDAY, JUL 2, 1976

TRANSGENERATED  
DATA INPUT

CASE NUMBER	GROUP NUMBER	1
2828427E+01	2828427E+03	1000000E+03
3779645E+00	5091169E+02	1000000E+05
5345225E+00	8247693E+04	1800000E+02
2545584E+04	2545584E+06	5832000E+06
3952847E+01	3952847E+03	1000000E+03
3779645E+00	7115125E+02	1000000E+05
5976143E+00	9221202E+04	1800000E+02
2846050E+04	2846050E+06	5832000E+06
5196152E+01	5196152E+03	1000000E+03
3779645E+00	9353074E+02	1000000E+05
6546537E+00	1010132E+05	1800000E+02
3117691E+04	3117691E+06	5832000E+06
6547900E+01	6547900E+03	1000000E+03
3779645E+00	1178622E+03	1000000E+05
7071068E+00	1091067E+05	1800000E+02
3367492E+04	3367492E+06	5832000E+06
8000000E+01	8000000E+03	1000000E+03
3779645E+00	1440000E+03	1000000E+05
7559289E+00	1166400E+05	1800000E+02
3600000E+04	3600000E+06	5832000E+06
8301867E+01	8301867E+03	1000000E+03
3779645E+00	1494336E+03	1000000E+05
7653197E+00	1180890E+05	1800000E+02
3644722E+04	3644722E+06	5832000E+06
0	1000000E+03	0
3333333E+00	1000000E+05	5832000E+04
0	1800000E+02	6000000E+01
0	7290000E+07	3333333E+02
0	5832000E+06	2750000E+00
3535534E+00	3535534E+02	1000000E+03
3333333E+00	6363961E+01	1000000E+05
2357023E+00	4123847E+04	1800000E+02
1272792E+04	1272792E+06	5832000E+06

FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

CASE NUMBER 689 GROUP NUMBER 1  
1.000000E+01 1.000000E+03 1.000000E+03 1.000000E+03 1.000000E+01 3.333333E+00 1.800000E+02 7.290000E+03  
3.333333E+00 1.800000E+02 1.000000E+05 1.000000E+05 5.832000E+04 6.000000E+01 7.290000E+07 3.333333E+02  
3.333333E+00 5.832000E+04 1.800000E+02 7.290000E+03 1.800000E+04 7.290000E+05 1.800000E+06 5.832000E+04  
1.800000E+04 1.800000E+06 5.832000E+06 3.259000E+00  
CASE NUMBER 690 GROUP NUMBER 1  
1.837117E+01 1.837117E+03 1.000000E+03 1.224745E+03 1.224745E+01 6.123724E+00 2.204541E+02 7.290000E+03  
3.333333E+00 3.306811E+02 1.000000E+05 1.837117E+05 5.832000E+04 6.000000E+01 7.290000E+07 3.333333E+02  
4.082483E+00 7.142712E+04 1.800000E+02 1.339259E+04 3.306811E+04 7.290000E+05 3.306811E+06 1.071407E+05  
2.204541E+04 2.204541E+06 5.832000E+06 3.449000E+00  
CASE NUMBER 691 GROUP NUMBER 1  
2.828427E+01 2.828427E+03 1.000000E+03 1.414214E+03 1.414214E+01 9.428090E+00 2.545584E+02 7.290000E+03  
3.333333E+00 5.091169E+02 1.000000E+05 2.828427E+05 5.832000E+04 6.000000E+01 7.290000E+07 3.333333E+02  
4.714045E+00 8.247693E+04 1.800000E+02 2.061923E+04 5.091169E+04 7.290000E+05 5.091169E+06 1.649539E+05  
2.545584E+04 2.545584E+06 5.832000E+06 3.667000E+00  
CASE NUMBER 692 GROUP NUMBER 1  
3.952847E+01 3.952847E+03 1.000000E+03 1.581139E+03 1.581139E+01 1.317616E+01 2.846050E+02 7.290000E+03  
3.333333E+00 7.115125E+02 1.000000E+05 3.952847E+05 5.832000E+04 6.000000E+01 7.290000E+07 3.333333E+02  
5.270463E+00 9.221202E+04 1.800000E+02 2.881626E+04 7.115125E+04 7.290000E+05 7.115125E+06 2.305300E+05  
2.846050E+04 2.846050E+06 5.832000E+06 3.915000E+00  
CASE NUMBER 693 GROUP NUMBER 1  
5.196152E+01 5.196152E+03 1.000000E+03 1.732051E+03 1.732051E+01 1.732051E+01 3.117691E+02 7.290000E+03  
3.333333E+00 9.353074E+02 1.000000E+05 5.196152E+05 5.832000E+04 6.000000E+01 7.290000E+07 3.333333E+02  
5.773503E+00 1.010132E+05 1.800000E+02 3.787995E+04 9.353074E+04 7.290000E+05 9.353074E+06 3.030396E+05  
3.117691E+04 3.117691E+06 5.832000E+06 4.201000E+00  
CASE NUMBER 694 GROUP NUMBER 1  
6.547900E+01 6.547900E+03 1.000000E+03 1.870829E+03 1.870829E+01 2.182633E+01 3.367492E+02 7.290000E+03  
3.333333E+00 1.178622E+03 1.000000E+05 6.547900E+05 5.832000E+04 6.000000E+01 7.290000E+07 3.333333E+02  
6.236096E+00 1.091067E+05 1.800000E+02 4.773419E+04 1.178622E+05 7.290000E+05 1.178622E+07 3.818736E+05  
3.367492E+04 3.367492E+06 5.832000E+06 4.525000E+00  
CASE NUMBER 695 GROUP NUMBER 1  
6.830520E+01 6.830520E+03 1.000000E+03 1.897367E+03 1.897367E+01 2.278840E+01 3.415260E+02 7.290000E+03  
3.333333E+00 1.229494E+03 1.000000E+05 6.830520E+05 5.832000E+04 6.000000E+01 7.290000E+07 3.333333E+02  
6.234555E+00 1.106544E+05 1.800000E+02 4.979449E+04 1.229494E+05 7.290000E+05 1.229494E+07 3.983559E+05  
3.415260E+04 3.415260E+06 5.832000E+06 4.589000E+00  
CASE NUMBER 696 GROUP NUMBER 1  
0. 0. 1.000000E+030. 0. 0. 0. 1.000000E+04  
3.162278E+000. 1.000000E+050. 5.832000E+04 5.692100E+01 1.000000E+08 3.162278E+02  
0. 0. 1.800000E+020. 0. 1.000000E+060. 0.  
0. 0. 5.832000E+06 2.783000E+00

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## TRANSGENERATED

## DATA INPUT

CASE NUMBER 697 GROUP NUMBER 1  
3.535534E+00 3.535534E+02 1.000000E+03 7.071068E+02 7.071068E+00 1.118034E+00 1.272792E+02 1.000000E+04  
3.162278E+00 6.363961E+01 1.000000E+05 3.535534E+04 5.832000E+04 5.692100E+01 1.000000E+08 3.162278E+02  
2.236058E+00 4.123847E+04 1.800000E+02 3.535534E+03 6.363961E+03 1.000000E+06 6.363961E+05 2.061923E+04  
1.272792E+04 1.272792E+06 5.832000E+06 3.054000E+00  
CASE NUMBER 698 GROUP NUMBER 1  
1.000000E+01 1.000000E+03 1.000000E+03 1.000000E+03 1.000000E+01 3.162278E+00 1.800000E+02 1.000000E+04  
3.162278E+00 1.800000E+02 1.000000E+05 1.000000E+05 5.832000E+04 5.692100E+01 1.000000E+08 3.162278E+02  
3.162278E+00 5.832000E+04 1.800000E+02 1.000000E+04 1.800000E+04 1.000000E+06 1.800000E+06 5.832000E+04  
1.800000E+04 1.800000E+06 5.832000E+06 3.312000E+00  
CASE NUMBER 699 GROUP NUMBER 1  
1.837117E+01 1.837117E+03 1.000000E+03 1.224745E+03 1.224745E+01 5.809475E+00 2.204541E+02 1.000000E+04  
3.162278E+00 3.306811E+02 1.000000E+05 1.837117E+05 5.832000E+04 5.692100E+01 1.000000E+08 3.162278E+02  
3.872983E+00 7.142712E+04 1.800000E+02 1.837117E+04 3.306811E+04 1.000000E+06 3.306811E+06 1.071407E+05  
2.204541E+04 2.204541E+06 5.832000E+06 3.517000E+00  
CASE NUMBER 700 GROUP NUMBER 1  
2.828427E+01 2.828427E+03 1.000000E+03 1.414214E+03 1.414214E+01 8.944272E+00 2.545584E+02 1.000000E+04  
3.162278E+00 5.091169E+02 1.000000E+05 2.828427E+05 5.832000E+04 5.692100E+01 1.000000E+08 3.162278E+02  
4.472135E+00 8.247693E+04 1.800000E+02 2.828427E+04 5.091169E+04 1.000000E+06 5.091169E+06 1.649539E+05  
2.545584E+04 2.545584E+06 5.832000E+06 3.749000E+00  
CASE NUMBER 701 GROUP NUMBER 1  
3.952847E+01 3.952847E+03 1.000000E+03 1.581139E+03 1.581139E+01 1.250000E+01 2.846050E+02 1.000000E+04  
3.162278E+00 7.115125E+02 1.000000E+05 3.952847E+05 5.832000E+04 5.692100E+01 1.000000E+08 3.162278E+02  
5.000000E+00 9.221202E+04 1.800000E+02 3.952847E+04 7.115125E+04 1.000000E+06 7.115125E+06 2.305300E+05  
2.846050E+04 2.846050E+06 5.832000E+06 4.014000E+00  
CASE NUMBER 702 GROUP NUMBER 1  
5.196152E+01 5.196152E+03 1.000000E+03 1.732051E+03 1.732051E+01 1.643168E+01 3.117691E+02 1.000000E+04  
3.162278E+00 9.353074E+02 1.000000E+05 5.196152E+05 5.832000E+04 5.692100E+01 1.000000E+08 3.162278E+02  
5.477226E+00 1.010132E+05 1.800000E+02 5.196152E+04 9.353074E+04 1.000000E+06 9.353074E+06 3.030396E+05  
3.117691E+04 3.117691E+06 5.832000E+06 4.317000E+00  
CASE NUMBER 703 GROUP NUMBER 1  
5.458113E+01 5.458113E+03 1.000000E+03 1.760682E+03 1.760682E+01 1.726007E+01 3.169227E+02 1.000000E+04  
3.162278E+00 9.824604E+02 1.000000E+05 5.458113E+05 5.832000E+04 5.692100E+01 1.000000E+08 3.162278E+02  
5.567764E+00 1.026830E+05 1.800000E+02 5.458113E+04 9.824604E+04 1.000000E+06 9.824604E+06 3.183172E+05  
3.169227E+04 3.169227E+06 5.832000E+06 4.380000E+00  
CASE NUMBER 704 GROUP NUMBER 1  
5.724334E+01 5.724334E+03 1.000000E+03 1.788854E+03 1.788854E+01 1.810193E+01 3.219938E+02 1.000000E+04  
3.162278E+00 1.030380E+03 1.000000E+05 5.724334E+05 5.832000E+04 5.692100E+01 1.000000E+08 3.162278E+02  
5.656854E+00 1.043260E+05 1.800000E+02 5.724334E+04 1.030380E+05 1.000000E+06 1.030380E+07 3.38432E+05  
3.219938E+04 3.219938E+06 5.832000E+06 4.446000E+00



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## TRANSGENERATED

## DATA INPUT

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CASE NUMBER 705
.5994748E+01 .5994748E+03 .1000000E+03 .1816590E+03 .1816590E+01 .1895706E+01 .3269862E+02 .1000000E+04
.3162278E+00 .1079055E+03 .1000000E+05 .5994748E+05 .5832000E+04 .5196152E+01 .1000000E+08 .3162278E+02
.5744563E+00 .1059435E+05 .1800000E+02 .5994748E+04 .1079055E+05 .1000000E+06 .1079055E+07 .3496137E+05
.3269862E+04 .3269862E+06 .5832000E+06 .4517000E+00

CASE NUMBER 706
0. 0. .1000000E+030. 0. 0. 0. .1728000E+04
.2886751E+000. .1000000E+050. .5832000E+04 .5196152E+01 .1728000E+08 .2886751E+02
0. 0. .1800000E+020. 0. .1728000E+060. 0.
0. 0. .5832000E+06 .2865000E+00

CASE NUMBER 707
.3535534E+00 .3535534E+02 .1000000E+03 .7071068E+02 .7071068E+00 .1020621E+00 .1272792E+02 .1728000E+04
.2886751E+00 .6363961E+01 .1000000E+05 .3535534E+04 .5832000E+04 .5196152E+01 .1728000E+08 .2886751E+02
.2041241E+00 .4123847E+04 .1800000E+02 .6109403E+03 .6363961E+03 .1728000E+06 .6363961E+05 .2061923E+04
.1272792E+04 .1272792E+06 .5832000E+06 .3150000E+00

CASE NUMBER 708
.1000000E+01 .1000000E+03 .1000000E+03 .1000000E+03 .1000000E+01 .2886751E+00 .1800000E+02 .1728000E+04
.2886751E+00 .1800000E+02 .1000000E+05 .5832000E+04 .5196152E+01 .1728000E+08 .2886751E+02
.2886751E+00 .5832000E+04 .1800000E+02 .1728000E+04 .1800000E+04 .1728000E+06 .1800000E+06 .5832000E+04
.1800000E+04 .1800000E+06 .5832000E+06 .3425000E+00

CASE NUMBER 709
.1837117E+01 .1837117E+03 .1000000E+03 .1224745E+03 .1224745E+01 .5303301E+00 .2204541E+02 .1728000E+04
.2886751E+00 .3306811E+02 .1000000E+05 .1837117E+05 .5832000E+04 .5196152E+01 .1728000E+08 .2886751E+02
.3535534E+00 .7142712E+04 .1800000E+02 .3174539E+04 .3306811E+04 .1728000E+06 .3306811E+06 .1071407E+05
.2204541E+04 .2204541E+06 .5832000E+06 .3654000E+00

CASE NUMBER 710
.2828427E+01 .2828427E+03 .1000000E+03 .1414214E+03 .1414214E+01 .8164966E+00 .2545584E+02 .1728000E+04
.2886751E+00 .5091169E+02 .1000000E+05 .2828427E+05 .5832000E+04 .5196152E+01 .1728000E+08 .2886751E+02
.4082483E+00 .8247693E+04 .1800000E+02 .4887522E+04 .5091169E+04 .1728000E+06 .5091169E+06 .1649539E+05
.2545584E+04 .2545584E+06 .5832000E+06 .3914000E+00

CASE NUMBER 711
.3952847E+01 .3952847E+03 .1000000E+03 .1581139E+03 .1581139E+01 .1141089E+01 .2846050E+02 .1728000E+04
.2886751E+00 .7115125E+02 .1000000E+05 .3952847E+05 .5832000E+04 .5196152E+01 .1728000E+08 .2886751E+02
.4564355E+00 .9221202E+04 .1800000E+02 .6830520E+04 .7115125E+04 .1728000E+06 .7115125E+06 .2305300E+05
.2846050E+04 .2846050E+06 .5832000E+06 .4209000E+00

CASE NUMBER 712
.4192374E+01 .4192374E+03 .1000000E+03 .1612452E+03 .1612452E+01 .1210234E+01 .2902413E+02 .1728000E+04
.2886751E+00 .7546273E+02 .1000000E+05 .4192374E+05 .5832000E+04 .5196152E+01 .1728000E+08 .2886751E+02
.4654747E+00 .9403817E+04 .1800000E+02 .7244422E+04 .7546273E+04 .1728000E+06 .7546273E+06 .2444993E+05
.2902413E+04 .2902413E+06 .5832000E+06 .4274000E+00

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FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

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CASE NUMBER 713
.4436553E+01 .4436553E+03 .1000000E+03 .1643168E+03 .1643168E+01 .1280722E+01 .2957702E+02 .1728000E+04
.2886751E+00 .7985795E+02 .1000000E+05 .4436553E+05 .5832000E+04 .5196152E+01 .1728000E+08 .2886751E+02
.4743416E+00 .9582954E+04 .1800000E+02 .7668363E+04 .7985795E+04 .1728000E+06 .7985795E+06 .2587398E+05
.2957702E+04 .2957702E+06 .5832000E+06 .4339000E+00

CASE NUMBER 714
.4685296E+01 .4685296E+03 .1000000E+03 .1673320E+03 .1673320E+01 .1352528E+01 .3011976E+02 .1728000E+04
.2886751E+00 .8432533E+02 .1000000E+05 .4685296E+05 .5832000E+04 .5196152E+01 .1728000E+08 .2886751E+02
.4830459E+00 .9758803E+04 .1800000E+02 .8096192E+04 .8432533E+04 .1728000E+06 .8432533E+06 .2732465E+05
.3011976E+04 .3011976E+06 .5832000E+06 .4405000E+00

CASE NUMBER 715
0. 0. .1000000E+030. 0. 0. 0. .3048625E+04
.2626129E+000. .1000000E+050. .5832000E+04 .4727032E+01 .3048625E+08 .2626129E+02
0. 0. .1800000E+020. 0. .3048625E+060. 0.
0. 0. .5832000E+06 .2987000E+00

CASE NUMBER 716
.3535534E+00 .3535534E+02 .1000000E+03 .7071068E+02 .7071068E+00 .9284767E+01 .1272792E+02 .3048625E+04
.2626129E+00 .6363961E+01 .1000000E+05 .3535534E+04 .5832000E+04 .4727032E+01 .3048625E+08 .2626129E+02
.1856953E+00 .4123847E+04 .1800000E+02 .1077852E+04 .6363961E+03 .3048625E+06 .6363961E+05 .2061923E+04
.1272792E+04 .1272792E+06 .5832000E+06 .3299000E+00

CASE NUMBER 717
.1000000E+01 .1000000E+03 .1000000E+03 .1000000E+03 .1000000E+01 .2626129E+00 .1800000E+02 .3048625E+04
.2626129E+00 .1800000E+02 .1000000E+05 .1000000E+05 .5832000E+04 .4727032E+01 .3048625E+08 .2626129E+02
.2626129E+00 .5832000E+04 .1800000E+02 .3048625E+04 .3048625E+06 .1800000E+06 .5832000E+06 .5832000E+04
.1800000E+04 .1800000E+06 .5832000E+06 .3571000E+00

CASE NUMBER 718
.1837117E+01 .1837117E+03 .1000000E+03 .1224745E+03 .1224745E+01 .4824506E+00 .2204541E+02 .3048625E+04
.2626129E+00 .3306811E+02 .1000000E+05 .1837117E+05 .5832000E+04 .4727032E+01 .3048625E+08 .2626129E+02
.3216338E+00 .7142712E+04 .1800000E+02 .5600682E+04 .3306811E+04 .3048625E+06 .3306811E+06 .1071407E+05
.2204541E+04 .2204541E+06 .5832000E+06 .3831000E+00

CASE NUMBER 719
.2828427E+01 .2828427E+03 .1000000E+03 .1414214E+03 .1414214E+01 .7427814E+00 .2545584E+02 .3048625E+04
.2626129E+00 .5091169E+02 .1000000E+05 .2828427E+05 .5832000E+04 .4727032E+01 .3048625E+08 .2626129E+02
.3713907E+00 .8247693E+04 .1800000E+02 .8622814E+04 .5091169E+04 .3048625E+06 .5091169E+06 .1649539E+05
.2545584E+04 .2545584E+06 .5832000E+06 .4118000E+00

CASE NUMBER 720
.3043189E+01 .3043189E+03 .1000000E+03 .1449138E+03 .1449138E+01 .7991806E+00 .2608448E+02 .3048625E+04
.2626129E+00 .5477740E+02 .1000000E+05 .3043189E+05 .5832000E+04 .4727032E+01 .3048625E+08 .2626129E+02
.3805622E+00 .8451371E+04 .1800000E+02 .9277542E+04 .5477740E+04 .3048625E+06 .5477740E+06 .1774788E+05
.2608448E+04 .2608448E+06 .5832000E+06 .4178000E+00

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## TRANSGENERATED

## DATA INPUT

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CASE NUMBER 721                                GROUP NUMBER 1
.3263127E+01 .3263127E+03 .1000000E+03 .1483240E+03 .1483240E+01 .8569392E+00 .2669831E+02 .3048625E+04
.2626129E+00 .5873629E+02 .1000000E+05 .3263127E+05 .5832000E+04 .4727032E+01 .3048625E+08 .2626129E+02
.3895178E+00 .8650254E+04 .1800000E+02 .9848052E+04 .5873629E+04 .3048625E+06 .5873629E+06 .1903056E+05
.2669831E+04 .2669831E+06 .5832000E+06 .4240000E+00
CASE NUMBER 722                                GROUP NUMBER 1
.3488123E+01 .3488123E+03 .1000000E+03 .1516575E+03 .1516575E+01 .9160259E+00 .2729835E+02 .3048625E+04
.2626129E+00 .6278621E+02 .1000000E+05 .3488123E+05 .5832000E+04 .4727032E+01 .3048625E+08 .2626129E+02
.3982721E+00 .8844666E+04 .1800000E+02 .1063398E+05 .6278621E+04 .3048625E+06 .6278621E+06 .2034273E+05
.2729835E+04 .2729835E+06 .5832000E+06 .4307000E+00
CASE NUMBER 723                                GROUP NUMBER 1
0. 0. 2000000E+030. 0. 0. 0. 3430000E+03
.3779645E+000. 4000000E+050. -5832000E+04-.6803361E+01 .1372000E+08 .7559289E+02
0. 0. -1800000E+020. 0. 0. 0.
0. 0. -1166400E+07 .2515000E+00
CASE NUMBER 724                                GROUP NUMBER 1
.353534E+00 .7071068E+02 .2000000E+03 .1414214E+03 .7071068E+00 .1336306E+00 .1272792E+02 .3430000E+03
.3779645E+00 .6363961E+01 .4000000E+05 .1414214E+05 .5832000E+04 .6803361E+01 .1372000E+08 .7559289E+02
.262612E+00 .4123847E+04 .1800000E+02 .1212688E+03 .1272792E+04 .6860000E+05 .2545584E+06 .2061923E+04
.2545584E+04 .5091169E+06 .1166400E+07 .2724000E+00
CASE NUMBER 725                                GROUP NUMBER 1
.1000000E+01 .2000000E+03 .2000000E+03 .2000000E+03 .1000000E+01 .3779645E+00 .1800000E+02 .3430000E+03
.3779645E+00 .1800000E+02 .4000000E+05 .4000000E+05 .5832000E+04 .6803361E+01 .1372000E+08 .7559289E+02
.3779645E+00 .5832000E+04 .1800000E+02 .3430000E+03 .3600000E+04 .6860000E+05 .7200000E+06 .5832000E+04
.3600000E+04 .7200000E+06 .1166400E+07 .2867000E+00
CASE NUMBER 726                                GROUP NUMBER 1
.1837117E+01 .3674235E+03 .2000000E+03 .2449490E+03 .1224745E+01 .6943651E+00 .2204541E+02 .3430000E+03
.3779645E+00 .3306811E+02 .4000000E+05 .7348469E+05 .5832000E+04 .6803361E+01 .1372000E+08 .7559289E+02
.4629100E+00 .7142712E+04 .1800000E+02 .6301312E+03 .6513622E+04 .6860000E+05 .1322724E+07 .1071407E+05
.4409082E+04 .8818163E+06 .1166400E+07 .3021000E+00
CASE NUMBER 727                                GROUP NUMBER 1
.2828427E+01 .5656854E+03 .2000000E+03 .2828427E+03 .1414214E+01 .1069045E+01 .2545584E+02 .3430000E+03
.3779645E+00 .5091169E+02 .4000000E+05 .1131371E+06 .5832000E+04 .6803361E+01 .1372000E+08 .7559289E+02
.5345225E+00 .8247693E+04 .1800000E+02 .9701505E+03 .1018234E+05 .6860000E+05 .2036468E+07 .1649539E+05
.5091169E+04 .1018234E+07 .1166400E+07 .3212000E+00
CASE NUMBER 728                                GROUP NUMBER 1
.3952847E+01 .7905694E+03 .2000000E+03 .3162278E+03 .1581139E+01 .1494036E+01 .2846050E+02 .3430000E+03
.3779645E+00 .7115125E+02 .4000000E+05 .1581139E+06 .5832000E+04 .6803361E+01 .1372000E+08 .7559289E+02
.5976143E+00 .9221202E+04 .1800000E+02 .1355827E+04 .1423025E+05 .6860000E+05 .2846050E+07 .2305300E+05
.5692100E+04 .1138420E+07 .1166400E+07 .3417000E+00

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## TRANSGENERATED

## DATA INPUT

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CASE NUMBER 729                                GROUP NUMBER 1
.5196152E+01 .1039230E+04 .2000000E+03 .3464102E+03 .1732051E+01 .1963961E+01 .3117691E+02 .3430000E+03
.3779645E+00 .9352074E+02 .4000000E+05 .2078461E+06 .5832000E+04 .6803361E+01 .1372000E+08 .7559289E+02
.6546537E+00 .1010132E+05 .1800000E+02 .1782280E+04 .1870615E+05 .6860000E+05 .3741230E+07 .3030396E+05
.6235383E+04 .1247077E+07 .1166400E+07 .3645000E+00
CASE NUMBER 730                                GROUP NUMBER 1
.6547900E+01 .1309580E+04 .2000000E+03 .3741657E+03 .1870829E+01 .2474874E+01 .3367492E+02 .3430000E+03
.3779645E+00 .1178622E+03 .4000000E+05 .2619160E+06 .5832000E+04 .6803361E+01 .1372000E+08 .7559289E+02
.7071068E+00 .1091067E+05 .1800000E+02 .2245930E+04 .2357244E+05 .6860000E+05 .4714488E+07 .3818736E+05
.6734983E+04 .1346997E+07 .1166400E+07 .3915000E+00
CASE NUMBER 731                                GROUP NUMBER 1
.6830520E+01 .1366104E+04 .2000000E+03 .3794733E+03 .1897367E+01 .2581694E+01 .3415260E+02 .3430000E+03
.3779645E+00 .1229494E+03 .4000000E+05 .2732208E+06 .5832000E+04 .6803361E+01 .1372000E+08 .7559289E+02
.7171372E+00 .1106544E+05 .1800000E+02 .2342868E+04 .2458987E+05 .6860000E+05 .4917974E+07 .3983559E+05
.6830520E+04 .1366104E+07 .1166400E+07 .3965000E+00
CASE NUMBER 732                                GROUP NUMBER 1
.7117092E+01 .1423418E+04 .2000000E+03 .3847077E+03 .1923538E+01 .2690008E+01 .3462369E+02 .3430000E+03
.3779645E+00 .1281077E+03 .4000000E+05 .2846837E+06 .5832000E+04 .6803361E+01 .1372000E+08 .7559289E+02
.7270292E+00 .1121808E+05 .1800000E+02 .2441183E+04 .2562153E+05 .6860000E+05 .5124306E+07 .4150688E+05
.6924738E+04 .1384948E+07 .1166400E+07 .4015000E+00
CASE NUMBER 733                                GROUP NUMBER 1
.7407564E+01 .1481513E+04 .2000000E+03 .3898718E+03 .1949359E+01 .2799796E+01 .3508846E+02 .3430000E+03
.3779645E+00 .1333361E+03 .4000000E+05 .2963025E+06 .5832000E+04 .6803361E+01 .1372000E+08 .7559289E+02
.7367884E+00 .1136868E+05 .1800000E+02 .2540794E+04 .2668723E+05 .6860000E+05 .5333446E+07 .4320091E+05
.7017692E+04 .1403538E+07 .1166400E+07 .4069000E+00
CASE NUMBER 734                                GROUP NUMBER 1
.7701883E+01 .1540377E+04 .2000000E+03 .3949684E+03 .1974842E+01 .2911038E+01 .3554715E+02 .3430000E+03
.3779645E+00 .1386339E+03 .4000000E+05 .3080753E+06 .5832000E+04 .6803361E+01 .1372000E+08 .7559289E+02
.7464200E+00 .1151728E+05 .1800000E+02 .2641746E+04 .2772678E+05 .6860000E+05 .5545356E+07 .4491738E+05
.7109430E+04 .1421886E+07 .1166400E+07 .4125000E+00
CASE NUMBER 735                                GROUP NUMBER 1
.8000000E+01 .1600000E+04 .2000000E+03 .4000000E+03 .2000000E+01 .3023716E+01 .3600000E+02 .3430000E+03
.3779645E+00 .1440000E+03 .4000000E+05 .3200000E+06 .5832000E+04 .6803361E+01 .1372000E+08 .7559289E+02
.7559289E+00 .1166400E+05 .1800000E+02 .2744000E+04 .2880000E+05 .6860000E+05 .5760000E+07 .4665600E+05
.7200000E+04 .1440000E+07 .1166400E+07 .4184000E+00
CASE NUMBER 736                                GROUP NUMBER 1
0. 0. 2000000E+030. 0. 0. 0. 7290000E+03
.3333333E+000. 4000000E+050. -5832000E+04-.6000000E+01 .2916000E+08 .6666667E+02
0. 0. -1800000E+020. 0. 0. 0.
0. 0. -1166400E+07 .2572000E+00

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## TRANSGENERATED

## DATA INPUT

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CASE NUMBER 737                                GROUP NUMBER 1
.3535534E+00 .7071068E+02 .2000000E+03 .1414214E+03 .7071068E+00 .1178511E+00-.1272792E+02 .7290000E+03
.3333333E+00-.6363961E+01 .4000000E+05 .1414214E+05-.5832000E+04-.6000000E+01 .2916000E+08 .6666667E+02
.2357023E+00-.4123847E+04-.1800000E+02 .2577404E+03-.1272792E+04 .1458000E+06-.2545584E+06-.2061923E+04
-.2545584E+04-.5091169E+06-.1166400E+07 .2799000E+00
CASE NUMBER 738                                GROUP NUMBER 1
.1000000E+01 .2000000E+03 .2000000E+03 .2000000E+03 .1000000E+01 .3333333E+00-.1800000E+02 .7290000E+03
.3333333E+00-.1800000E+02 .4000000E+05 .4000000E+05-.5832000E+04-.6000000E+01 .2916000E+08 .6666667E+02
.3333333E+00-.5832000E+04-.1800000E+02 .7290000E+03-.3600000E+04 .1458000E+06-.7200000E+06-.5832000E+04
-.3600000E+04-.7200000E+06-.1166400E+07 .2977000E+00
CASE NUMBER 739                                GROUP NUMBER 1
.1837117E+01 .3674235E+03 .2000000E+03 .2449490E+03 .1224745E+01 .6123724E+00-.2204541E+02 .7290000E+03
.3333333E+00-.3306811E+02 .4000000E+05 .7348469E+05-.5832000E+04-.6000000E+01 .2916000E+08 .6666667E+02
.4028483E+00-.7142712E+04-.1800000E+02 .1339259E+04-.6613622E+04 .1458000E+06-.1322724E+07-.1071407E+05
-.4409082E+04-.8818163E+06-.1166400E+07 .3163000E+00
CASE NUMBER 740                                GROUP NUMBER 1
.2828427E+01 .5656854E+03 .2000000E+03 .2828427E+03 .1414214E+01 .9428090E+00-.2545584E+02 .7290000E+03
.3333333E+00-.5091169E+02 .4000000E+05 .1131371E+06-.5832000E+04-.6000000E+01 .2916000E+08 .6666667E+02
.4714045E+00-.8247693E+04-.1800000E+02 .2061923E+04-.1018234E+05 .1458000E+06-.2036468E+07-.1649539E+05
-.5091169E+04-.1018234E+07-.1166400E+07 .3372000E+00
CASE NUMBER 741                                GROUP NUMBER 1
.3952847E+01 .7905694E+03 .2000000E+03 .3162278E+03 .1581139E+01 .1317616E+01-.2846050E+02 .7290000E+03
.3333333E+00-.7115125E+02 .4000000E+05 .1581139E+06-.5832000E+04-.6000000E+01 .2916000E+08 .6666667E+02
.5270463E+00-.9221202E+04-.1800000E+02 .2881626E+04-.1423025E+05 .1458000E+06-.2846050E+07-.2305300E+05
-.5692100E+04-.1138420E+07-.1166400E+07 .3606000E+00
CASE NUMBER 742                                GROUP NUMBER 1
.5196152E+01 .1039230E+04 .2000000E+03 .3464102E+03 .1732051E+01 .1732051E+01-.3117691E+02 .7290000E+03
.3333333E+00-.9353074E+02 .4000000E+05 .2078461E+06-.5832000E+04-.6000000E+01 .2916000E+08 .6666667E+02
.5773503E+00-.1010132E+05-.1800000E+02 .3787985E+04-.1870615E+05 .1458000E+06-.3741230E+07-.3030396E+05
-.6235383E+04-.1247077E+07-.1166400E+07 .3880000E+00
CASE NUMBER 743                                GROUP NUMBER 1
.5458113E+01 .1091623E+04 .2000000E+03 .3521363E+03 .1760682E+01 .1819371E+01-.3169227E+02 .7290000E+03
.3333333E+00-.9824604E+02 .4000000E+05 .2183245E+06-.5832000E+04-.6000000E+01 .2916000E+08 .6666667E+02
.5868938E+00-.1026830E+05-.1800000E+02 .3978965E+04-.1964921E+05 .1458000E+06-.3929842E+07-.3183172E+05
-.6338454E+04-.1267691E+07-.1166400E+07 .3940000E+00
CASE NUMBER 744                                GROUP NUMBER 1
.5724334E+01 .1144867E+04 .2000000E+03 .3577709E+03 .1788854E+01 .1908111E+01-.3219938E+02 .7290000E+03
.3333333E+00-.1030380E+03 .4000000E+05 .2289734E+06-.5832000E+04-.6000000E+01 .2916000E+08 .6666667E+02
.5962848E+00-.1043260E+05-.1800000E+02 .4173040E+04-.2060760E+05 .1458000E+06-.4121520E+07-.3338432E+05
-.6439876E+04-.1287975E+07-.1166400E+07 .4002000E+00

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## TRANSGENERATED

## DATA INPUT

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CASE NUMBER 745                                GROUP NUMBER 1
.5984748E+01 .1198950E+04 .2000000E+03 .3633180E+03 .1816580E+01 .1981249E+01-.3269862E+02 .7290000E+03
.3333333E+00-.1079055E+03 .4000000E+05 .2397899E+06-.5832000E+04-.6000000E+01 .2916000E+08 .6666667E+02
.6055301E+00-.1059435E+05-.1800000E+02 .4370171E+04-.2158109E+05 .1458000E+06-.4316218E+07-.3496137E+05
-.6539725E+04-.1307945E+07-.1166400E+07 .4066000E+00
CASE NUMBER 746                                GROUP NUMBER 1
.6269290E+01 .1253858E+04 .2000000E+03 .3687818E+03 .1843509E+01 .2089763E+01-.3319036E+02 .7290000E+03
.3333333E+00-.1128472E+03 .4000000E+05 .2507716E+06-.5832000E+04-.6000000E+01 .2916000E+08 .6666667E+02
.6146363E+00-.1073368E+05-.1800000E+02 .4570313E+04-.2256944E+05 .1458000E+06-.4513889E+07-.3656250E+05
-.6638072E+04-.1327614E+07-.1166400E+07 .4131000E+00
CASE NUMBER 747                                GROUP NUMBER 1
0. 0. .2000000E+030. 0. 0. 0. .1000000E+04
.3162278E+000. .4000000E+050. .5832000E+04-.5692100E+01 .4000000E+08 .6324555E+02
0. 0. -.1800000E+020. 0. .2000000E+060. 0.
0. 0. -.1166400E+07 .2604000E+00
CASE NUMBER 748                                GROUP NUMBER 1
.3535534E+00 .7071068E+02 .2000000E+03 .1414214E+03 .7071068E+00 .1118034E+00-.1272792E+02 .1000000E+04
.3162278E+00-.6363961E+01 .4000000E+05 .1414214E+05-.5832000E+04-.5692100E+01 .4000000E+08 .6324555E+02
.2236068E+00-.4123847E+04-.1800000E+02 .3535534E+03-.1272792E+04 .2000000E+06-.2545584E+06-.2061923E+04
-.2545584E+04-.5091169E+06-.1166400E+07 .2838000E+00
CASE NUMBER 749                                GROUP NUMBER 1
.1000000E+01 .2000000E+03 .2000000E+03 .2000000E+03 .1000000E+01 .3162278E+00-.1800000E+02 .1000000E+04
.3162278E+00-.1800000E+02 .4000000E+05 .4000000E+05-.5832000E+04-.5692100E+01 .4000000E+08 .6324555E+02
.3162278E+00-.5832000E+04-.1800000E+02 .1000000E+04-.3600000E+04 .2000000E+06-.7200000E+06-.5832000E+04
-.3600000E+04-.7200000E+06-.1166400E+07 .3036000E+00
CASE NUMBER 750                                GROUP NUMBER 1
.1837117E+01 .3674235E+03 .2000000E+03 .2449490E+03 .1224745E+01 .5809475E+00-.2204541E+02 .1000000E+04
.3162278E+00-.3306811E+02 .4000000E+05 .7348469E+05-.5832000E+04-.5692100E+01 .4000000E+08 .6324555E+02
.3872983E+00-.7142712E+04-.1800000E+02 .1837117E+04-.6613622E+04 .2000000E+06-.1322724E+07-.1071407E+05
-.4409082E+04-.8818163E+06-.1166400E+07 .3233000E+00
CASE NUMBER 751                                GROUP NUMBER 1
.2828427E+01 .5656854E+03 .2000000E+03 .2828427E+03 .1414214E+01 .8944272E+00-.2545584E+02 .1000000E+04
.3162278E+00-.5091169E+02 .4000000E+05 .1131371E+06-.5832000E+04-.5692100E+01 .4000000E+08 .6324555E+02
.4472136E+00-.8247693E+04-.1800000E+02 .2828427E+04-.1018234E+05 .2000000E+06-.2036468E+07-.1649539E+05
-.5091169E+04-.1018234E+07-.1166400E+07 .3451000E+00
CASE NUMBER 752                                GROUP NUMBER 1
.3952847E+01 .7905694E+03 .2000000E+03 .3162278E+03 .1581139E+01 .1250000E+01-.2846050E+02 .1000000E+04
.3162278E+00-.7115125E+02 .4000000E+05 .1581139E+06-.5832000E+04-.5692100E+01 .4000000E+08 .6324555E+02
.5000000E+00-.9221202E+04-.1800000E+02 .3952847E+04-.1423025E+05 .2000000E+06-.2846050E+07-.2305300E+05
-.5692100E+04-.1138420E+07-.1166400E+07 .3704000E+00

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## TRANSGENERATED

## DATA INPUT

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CASE NUMBER 753
.5196152E+01 .1039230E+04 .2000000E+03 .3464102E+03 .1732051E+01 .1643168E+01 .3117691E+02 .1000000E+04
.3162278E+00 .9353074E+02 .4000000E+05 .2078481E+06 .5832000E+04 .5692100E+01 .4000000E+08 .6324555E+02
.5477226E+00 .1010132E+05 .1800000E+02 .5196152E+04 .1870615E+05 .2000000E+06 .3741230E+07 .1030396E+05
.6235383E+04 .1247077E+07 .1166400E+07 .3998000E+00
CASE NUMBER 754
.5458113E+01 .1091623E+04 .2000000E+03 .3521363E+03 .1760682E+01 .1726007E+01 .3169227E+02 .1000000E+04
.3162278E+00 .9824604E+02 .4000000E+05 .2183245E+06 .5832000E+04 .5692100E+01 .4000000E+08 .6324555E+02
.5567764E+00 .1026830E+05 .1800000E+02 .5458113E+04 .1964921E+05 .2000000E+06 .3929842E+07 .1183172E+05
.6338454E+04 .1267691E+07 .1166400E+07 .4062000E+00
CASE NUMBER 755
.0. 0. .2000000E+030. 0. 0. 0. .1728000E+04
.2886751E+000. .4000000E+050. .5832000E+04. .5196152E+01 .6912000E+08 .5773503E+02
.0. 0. .1800000E+020. .3456000E+060. 0.
.0. 0. .1166400E+07 .2669000E+00
CASE NUMBER 756
.3535534E+00 .7071068E+02 .2000000E+03 .1414214E+03 .7071068E+00 .1020621E+00 .1272792E+02 .1728000E+04
.2886751E+00 .6363961E+01 .4000000E+05 .1414214E+05 .5832000E+04 .5196152E+01 .6912000E+08 .5773503E+02
.2041241E+00 .4123847E+04 .1800000E+02 .6109403E+03 .1272792E+04 .3456000E+06 .2545584E+06 .2061923E+04
.2545584E+04 .5091169E+06 .1166400E+07 .2922000E+00
CASE NUMBER 757
.1000000E+01 .2000000E+03 .2000000E+03 .1000000E+01 .2886751E+00 .1800000E+02 .1728000E+04
.2886751E+00 .1800000E+02 .4000000E+05 .4000000E+05 .5832000E+04 .5196152E+01 .6912000E+08 .5773503E+02
.2886751E+00 .5832000E+04 .1800000E+02 .1728000E+04 .3600000E+04 .3456000E+06 .7200000E+06 .5832000E+04
.3600000E+04 .7200000E+06 .1166400E+07 .3157000E+00
CASE NUMBER 758
.1837117E+01 .3674235E+03 .2000000E+03 .2448490E+03 .1224745E+01 .5303301E+00 .2204541E+02 .1728000E+04
.2886751E+00 .3306811E+02 .4000000E+05 .7348469E+05 .5832000E+04 .5196152E+01 .6912000E+08 .5773503E+02
.3535534E+00 .7142712E+04 .1800000E+02 .3174539E+04 .6613622E+04 .3456000E+06 .1322724E+07 .1071407E+05
.4409082E+04 .8818163E+06 .1166400E+07 .3359000E+00
CASE NUMBER 759
.2828427E+01 .5656854E+03 .2000000E+03 .2828427E+03 .1414214E+01 .8164866E+00 .2545584E+02 .1728000E+04
.2886751E+00 .5091169E+02 .4000000E+05 .1131371E+06 .5832000E+04 .5196152E+01 .6912000E+08 .5773503E+02
.4082483E+00 .8247693E+04 .1800000E+02 .4887522E+04 .1018234E+05 .3456000E+06 .2036468E+07 .1649538E+05
.5091169E+04 .1018234E+07 .1166400E+07 .3613000E+00
CASE NUMBER 760
.3952847E+01 .7905694E+03 .2000000E+03 .3162278E+03 .1581139E+01 .1141089E+01 .2846050E+02 .1728000E+04
.2886751E+00 .7115125E+02 .4000000E+05 .1581139E+06 .5832000E+04 .5196152E+01 .6912000E+08 .5773503E+02
.4564355E+00 .9221202E+04 .1800000E+02 .6830520E+04 .1423025E+05 .3456000E+06 .2846050E+07 .2305300E+05
.5692100E+04 .1138420E+07 .1166400E+07 .3897000E+00

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FRIDAY, JUL 2, 1976

## TRANSGENERATED

## DATA INPUT

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CASE NUMBER 761
.4192374E+01 .8384748E+03 .2000000E+03 .3224903E+03 .1612452E+01 .1210234E+01 .2302413E+02 .1728000E+04
.2886751E+00 .7546273E+02 .4000000E+05 .1676950E+06 .5832000E+04 .5196152E+01 .6912000E+08 .5773503E+02
.4654747E+00 .9403817E+04 .1800000E+02 .7244422E+04 .1509255E+05 .3456000E+06 .3018509E+07 .2444993E+05
.5804826E+04 .1160965E+07 .1166400E+07 .3958000E+00
CASE NUMBER 762
.0. 0. .2000000E+030. 0. 0. 0. .3048625E+04
.2626129E+000. .4000000E+050. .5832000E+04. .4727032E+01 .1219450E+09 .5252257E+02
.0. 0. .1800000E+020. .6097250E+060. 0.
.0. 0. .1166400E+07 .2765000E+00
CASE NUMBER 763
.3535534E+00 .7071068E+02 .2000000E+03 .1414214E+03 .7071068E+00 .9284767E+01 .1272792E+02 .3048625E+04
.2626129E+00 .6363961E+01 .4000000E+05 .1414214E+05 .5832000E+04 .4727032E+01 .1219450E+09 .5252257E+02
.1856953E+00 .4123847E+04 .1800000E+02 .1077852E+04 .1272792E+04 .6097250E+06 .2545584E+06 .2061923E+04
.2545584E+04 .5091169E+06 .1166400E+07 .3034000E+00
CASE NUMBER 764
.1000000E+01 .2000000E+03 .2000000E+03 .1000000E+01 .2626129E+00 .1800000E+02 .3048625E+04
.2626129E+00 .1800000E+02 .4000000E+05 .4000000E+05 .5832000E+04 .4727032E+01 .1219450E+09 .5252257E+02
.2626129E+00 .5832000E+04 .1800000E+02 .3048625E+04 .3600000E+04 .6097250E+06 .7200000E+06 .5832000E+04
.3600000E+04 .7200000E+06 .1166400E+07 .3299000E+00
CASE NUMBER 765
.1837117E+01 .3674235E+03 .2000000E+03 .2448490E+03 .1224745E+01 .4824506E+00 .2204541E+02 .3048625E+04
.2626129E+00 .3306811E+02 .4000000E+05 .7348469E+05 .5832000E+04 .4727032E+01 .1219450E+09 .5252257E+02
.3216338E+00 .7142712E+04 .1800000E+02 .5600682E+04 .6613622E+04 .6097250E+06 .1322724E+07 .1071407E+05
.4409082E+04 .8818163E+06 .1166400E+07 .3538000E+00
CASE NUMBER 766
.2023858E+01 .4047715E+03 .2000000E+03 .2529822E+03 .1264911E+01 .5314911E+00 .2276840E+02 .3048625E+04
.2626129E+00 .3642944E+02 .4000000E+05 .8095431E+05 .5832000E+04 .4727032E+01 .1219450E+09 .5252257E+02
.3321819E+00 .7376961E+04 .1800000E+02 .6169983E+04 .7285888E+04 .6097250E+06 .1457178E+07 .1180314E+05
.4553680E+04 .9107360E+06 .1166400E+07 .3595000E+00
CASE NUMBER 767
.2216529E+01 .4433058E+03 .2000000E+03 .2607681E+03 .1303840E+01 .5820890E+00 .2346913E+02 .3048625E+04
.2626129E+00 .3989752E+02 .4000000E+05 .8866115E+05 .5832000E+04 .4727032E+01 .1219450E+09 .5252257E+02
.3424053E+00 .7603998E+04 .1800000E+02 .6757365E+04 .7979504E+04 .6097250E+06 .1595901E+07 .1292680E+05
.4693826E+04 .9387651E+06 .1166400E+07 .3647000E+00
CASE NUMBER 768
.2414953E+01 .4829907E+03 .2000000E+03 .2683282E+03 .1341641E+01 .6341978E+00 .2414953E+02 .3048625E+04
.2626129E+00 .4346916E+02 .4000000E+05 .9659814E+05 .5832000E+04 .4727032E+01 .1219450E+09 .5252257E+02
.3523321E+00 .7824449E+04 .1800000E+02 .7362287E+04 .8693832E+04 .6097250E+06 .1738766E+07 .1408401E+05
.4829907E+04 .9659814E+06 .1166400E+07 .3701000E+00

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FRIDAY, JUL 2, 1976

## TRANSGENERATED

DATA INPUT

CASE NUMBER 769

GROUP NUMBER 1

.2618969E+01 .5237939E+03 .2000000E+03 .2756810E+03 .1378405E+01 .6877750E+00-.2481129E+02 .3048625E+04  
.2626129E+00-.4714145E+02 .4000000E+05 .1047588E+06-.5832000E+04-.4727032E+01 .1219450E+09 .5252257E+02  
.3619869E+00-.8038857E+04-.1800000E+02 .7984255E+04-.9428289E+04 .6097250E+06-.1885658E+07-.1527383E+05  
-.4962258E+04-.9924515E+06-.1166400E+07 .3757000E+00

CASE NUMBER 770

GROUP NUMBER 1

.2828427E+01 .5656854E+03 .2000000E+03 .2828427E+03 .1414214E+01 .7427814E+00-.2545584E+02 .3048625E+04  
.2626129E+00-.5091169E+02 .4000000E+05 .1131371E+06-.5832000E+04-.4727032E+01 .1219450E+09 .5252257E+02  
.3713907E+00-.8247693E+04-.1800000E+02 .8622814E+04-.1018234E+05 .6097250E+06-.2036468E+07-.1649539E+05  
-.5091169E+04-.1018234E+07-.1166400E+07 .3814000E+00

A P P E N D I X    B

ANALYSIS OF COVARIANCE COMPUTER PROGRAM LISTING

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This section contains the FORTRAN source listings for program BMD04V and its associated subroutines, presented in the following order:

PROGRAM BMD04V

Subroutines

MINV

GRSPSEL

PATTY2

TG41

TPWD

WRT

LDAY

CONF



```

PROGRAM BMD04V(INPUT,OUTPUT,TAPE4,TAPE5=INPUT,TAPE6=OUTPUT,TAPE1,
CTAPE2,TAPE3,TAPE7,TAPE8,TAPE9)
C      BMD04V                                00000000
C      THIS IS A SIFTED VERSION OF BMD04V ORIGINALLY WRITTEN IN      00000020
C      FORTRAN II. SOME MODIFICATIONS WERE MADE TO MAKE IT OPERABLE  00000030
C      AND SLIGHTLY MORE EFFICIENT THAN THE SIFTED VERSION.          00000040
C                                                                    00000050
C      CODE=PROBLEM IDENTIFICATION                                00000060
C      KVF=NO. OF VARIABLE FORMAT CARDS                            00000070
C      LYNN=NO. OF TREATMENT DEFINITION CARDS                     00000080
C      NADD=NO. OF VARIABLES TO BE ADDED AFTER TG                  00000090
C      NCARD=NO. OF CARDS/CASE                                     00000100
C      NCASE=NO. OF CASES                                          00000110
C      NCOV=NO. OF COVARIATES                                      00000120
C      NDV=NO. OF THE DEPENDENT VARIABLE                          00000130
C      NGRPS=NO. OF TREATMENT GROUPS                              00000140
C      NTAPE=LOGICAL TAPE NO. FOR INPUT DATA                     00000150
C      NTG=NO. OF TG CARDS                                         00000160
C      REP=REPROCESS SAME DATA MATRIX                             00000170
C
C      REAL  CODE,NAMES,KKK                                00000185
C      DOUBLE PRECISION Z,DB,DE,DT
C      DIMENSION NAMES(36),KKK(100),TMP(8),INDX(8),WHEN(3)        00000190
C      DIMENSION NEW(99),JUMP(99),NA(99),BN(99),NSAM(99),FMT(80),
C      IDATA(100),NSUB(99,6),CONT(99,6),REL(99,6),OPER(99,6),NG(99),X(36),00000220
C      2SSVAR(99,36),TOTXX(36,36),TOTXY(36),TREXX(36,36),TREXY(36),
C      3ERRXX(36,36),ERRXY(36),LLL(36),B(35),C(35),D(35),
C      4SEB(35),SEC(35),SED(35),ADY(99),SEADY(99),A(99),SS(99),YY(99)
C      5,INDEX1(100),INDEX2(36),IX(8),Z(125),IY(35),IZ(35)
C      6,ERRCC(36,36),TRECC(36,36),TOTCC(36,36),NCG(99),SDWG(99),VWG(99)
C      COMMON DATA , NSUB , CONT , REL , OPER , NG              00000270
C      COMMON LH , NEW , JUMP , NA , BN , IERROR                 00000280
C      COMMON NVAR , NTG , NCASE                                  00000290
C      COMMON /WT/A,B,C,D,SEB,SEC,SED,SSVAR,ADY,SEADY,YAC,WHEN
C      SER(X)=1.+X*((X/1.414213562)**2)+((X/1.817120593)**3)
C      1+((X/2.213363839)**4)+((X/2.605171085)**5)+((X/2.993795166)**6)
C      2+((X/3.380015161)**7)+((X/3.7643506)**8)+((X/4.147166272)**9)
C      3+((X/4.528728687)**10)+((X/4.909238779)**11)+((X/5.288851994)**12)
C      4+((X/5.667691177)**13)+((X/6.045855167)**14)+((X/6.423424746)**15)
C      5+((X/6.800466801)**16)+((X/7.177037353)**17)+((X/7.553183862)**18)
C      6+((X/7.928946849)**19)+((X/8.304361204)**20)+((X/8.679457224)**21)
C      5 FORMAT(1H1)
C      3 FORMAT(1H1,105X,3A10)
102  FORMAT(' BMD04V - ANALYSIS OF COVARIANCE - MULTIPLE COVARIATES - R00000300
REVISD OCTOBER 2, 1972*/
293H HEALTH SCIENCES COMPUTING FACILITY, UCLA ( NADC REVISI
30N JULY 2, 1976 J.J. FRANZ ///)
WRITE(6,5)
ITAPE=2                                00000330
REWIND ITAPE                           00000340
IT3=3                                  00000350
NTAPE=5                                00000360
JTape=7
DATA A124/6HFINISH/,A125/6HSAMS12/,A126/6HGRPDEF/,A321/6HTRNGEN/00000370
1,A421/6HCVRSEL/,A521/6HLAB //,P123/6HPRBLM/ 00000380
DATA A123/3HYES/
CALL LDAY(WHEN)
999 READ (5,100)TODE,CODE,NGRPS,NCASE,NCARD,NCOV,NADD,NDV,OUT,INAM,REP00000400
1,LYNN,WRES,TRES,VAR,SSQ,MCDR,CORR,FCAST,REW,NTG,MTAPE,KVF
NTG=0                                00000420

IF(TODE.NE.A124) GO TO 1                00000430
2 IF(NTAPE.LE.5) GO TO 4                00000440
REWIND NTAPE                            00000450
4 STOP                                  00000460
1 REWIND 8
REWIND 9
WRITE(6,3) WHEN
ZQQQ=P123
IF(TODE.NE.P123) GO TO 446              00000480
IF(NGRPS.LE.0) GO TO 456                00000490
IF(NCOV.LT.2) GO TO 496                 00000500
GO TO 400                               00000510
446 WRITE (6,4446) ZQQQ,TODE             00000520
4446 FORMAT(1H0,A6,60H CARD EXPECTED. THE FIRST SIX COLUMNS OF THE CARD00000530
1 READ WERE ,A6)
GO TO 2                                 00000540
441 WRITE (6,4441)                       00000550
4441 FORMAT(40H0ILLEGAL NUMBER OF TRANSGENERATION CARDS)
GO TO 2                                 00000560
1441 WRITE(6,2441)                       00000570
2441 FORMAT(31H0PROBLEM HAS TOO MANY VARIABLES)
GO TO 2                                 00000580
1442 WRITE(6,2442)                       00000590
2442 FORMAT(44H0ILLEGAL NUMBER IN COL.24-26 ON PROBLM CARD.)
GO TO 2                                 00000600
448 WRITE(6,4488)                       00000610
4488 FORMAT(55H0VIOLATING EITHER RULE(2) OR RULE(5) ON PAGE 525 OF BMD)00000620
GO TO 2                                 00000630
491 WRITE(6,4910)                       00000640
4910 FORMAT(41H0NUMBER OF GROUP DEFINITION CARDS ILLEGAL)
GO TO 2                                 00000650
496 WRITE(6,4969)                       00000660
4969 FORMAT(35H0ILLEGAL NUMBER OF VARIATES READ IN)
GO TO 2                                 00000670
456 WRITE(6,4569)                       00000680
4569 FORMAT(35H0ILLEGAL NUMBER OF TREATMENT GROUPS)
GO TO 2                                 00000690
443 WRITE (6,4443)                      00000700
4443 FORMAT(50H0THE NUMBER OF THE INPUT TAPE CANNOT BE 2 OR 3 )
GO TO 2                                 00000710
1440 WRITE(6,2440) IL                    00000720
2440 FORMAT(64H0PROBLEM HAS TOO MANY VARIABLES FOR THE NUMBER OF CASES
1IN GROUP,15)
GO TO 2                                 00000730
401 WRITE (6,403)                       00000740
GO TO 2                                 00000750
400 WRITE (6,102)                        00000760
BACKSPACE 5                            00000770
READ (5,114) (IX(J),J=1,8)              00000780
WRITE (6,98) (IX(J),J=1,8)              00000790
98 FORMAT(1X,8A10,/)
WRITE (6,103)CODE,NGRPS,NCASE,NCARD,NCOV,NADD,NDV,OUT,INAM,REP,LY00000830
INN,WRES,TRES,VAR,CORR,FCAST,REW,NTG,MTAPE,KVF
IF((NCOV+NADD)*(NCOV+NADD-100).GE.0)GO TO 1441 00000850
IF((NADD+98)*(NADD-35).GE.0)GO TO 1442 00000860
IF((MTAPE-ITAPE)*(MTAPE-IT3).EQ.0)GO TO 443 00000870
IF(REW.EQ.A123)CALL TPWD(MTAPE,NTAPE)
NVAR=NCOV                                00000890
KIT3=0                                    00000900
REWIND IT3                               00000910

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# NADC-77036-30

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REWIND JTAPE
ERROR=0
DO 332 I=1,99
332 DATA(I)=0.0
DO 333 I=1,36
333 NAMES(I)=0
INDEX1(I)=0
INDEX2(I)=0
LN=NVAR+1=NAOD
C NVAR1=LN-1
LR=NVAR
IF(LH.GE.38.OR.LH.LE.2)GO TO 1441
IF(KVF.GT.0.AND.KVF.LE.10)GO TO 410
WRITE (6,9999)
KVF = 1
410 ASSIGN 50 TO NSKIP
IF(NTG) 441,10,11
11 ASSIGN 49 TO NSKIP
IF(NTG.GT.99) GO TO 441
ZQQQ=A321
DO 411 I=1,NTG
READ (5,106)TODE,NEW(I),JUMP(I),NA(I),BN(I)
IF(TODE.NE.A321) GO TO 446
IF(MOD(I,50).NE.1)GO TO 12
WRITE(6,3) WHEN
WRITE (6,104)
WRITE (6,105)
12 WRITE (6,107)I,NEW(I),JUMP(I),NA(I),BN(I)
IF((JUMP(I)-18)*(JUMP(I)-19)*(JUMP(I)-40).EQ. 0) GO TO 4115
IF(JUMP(I)-41)411,411,4115
4111 IF((JUMP(I)-25)*(39-JUMP(I)) .LT. 0) GO TO 411
4115 WRITE (6,150)I
LYNN=99
411 CONTINUE
10 IF(LYNN)491,14,13
13 WRITE(6,3) WHEN
WRITE (6,110)
IJ=0
DATA STAR/4H* /
DO 21 I=1,LYNN
READ (5,111)TODE,NG(I),(NSUB(I,J),REL(I,J),CONT(I,J),OPER(I,J),J=100001260
1,6)
ZQQQ=A126
IF(TODE.NE.A126) GO TO 446
DO 16 LL=1,6
IF(OPER(I,LL).NE.STAR)GO TO 16
IK=LL+3
IJ=IJ+IK
GO TO 18
16 CONTINUE
18 IF(IJ.LE.50)GO TO 19
IJ=IK
WRITE(6,3) WHEN
WRITE (6,110)
19 WRITE (6,112)NG(I)
DO 22 J=1,6
WRITE (6,113)NSUB(I,J),REL(I,J),CONT(I,J),OPER(I,J)
IF(OPER(I,J) .EQ. STAR) GO TO 21
22 CONTINUE
21 CONTINUE
GO TO 15
14 NCARDS=(NGRPS+21)/22
N2=0
WRITE (6,3) WHEN
WRITE (6,155)
DO 1450 J=1,NCARDS
N1=N2+1
N2=N2+22
IF(N2 .LE. 99) GO TO 1430
N2=99
1430 READ (5,109)TODE,(NSAM(I),I=N1,N2)
WRITE (6,157)TODE,(NSAM(I),I=N1,N2)
BACKSPACE 5
READ (5,108)TODE,(NSAM(I),I=N1,N2)
ZQQQ=A125
IF(TODE.NE.A125) GO TO 446
1450 CONTINUE
15 IF(INAM)401,17,501
501 N1=0
WRITE(6,3) WHEN
WRITE (6,125)
503 READ(5,504)TODE,(INDX(I),TMP(I),I=1,7)
504 FORMAT(A3,3X,7(I4,A6))
IF(TODE.NE.A521)GO TO 446
DO 505 I=1,7
IF(INDX(I).EQ.0)GO TO 505
N1=N1+1
INDEX1(N1)=INDX(I)
KKK(N1)=TMP(I)
505 CONTINUE
BACKSPACE 5
READ(5,506)(INDX(I),I=1,7)
WRITE(6,126)(INDX(I),TMP(I),I=1,7)
506 FORMAT(6X,7(A4,6X))
IF(N1.LT.INAM)GO TO 503
17 KVF=KVF+8
WRITE(6,3) WHEN
WRITE (6,1090)
READ (5,114)(FMT(I),I=1,KVF)
WRITE(6,209)(FMT(I),I=1,KVF)
209 FORMAT(1X,8A10)
IF( REP .EQ.A123) GO TO 37
K1=NCARD+NCASE
KIT3=1
IF(NTAPE.NE.5) GO TO 3777
DO 35 I=1,K1
READ (NTAPE,114) (IX(J),J=1,8)
35 WRITE (IT3,114) (IX(J),J=1,8)
END FILE IT3
NLA=IT3
37 WTAPE=NLA
3777 KNTD=KIT3
IF(KNTD.EQ.0) GO TO 36
REWIND WTAPE
36 IF(LYNN .GT. 0) GO TO 26
NITP=1
KNTD=1
DO 27 I=1,NGRPS
NN=NSAM(I)
DO 27 J=1,NN

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      READ (NTAPE,FMT)(DATA(K),K=1,NVAR)
      DATA(100)=1
      WRITE(ITAPE)(DATA(K),K=1,NVAR),DATA(100)
27  CONTINUE
      GO TO 28
26  DO 29 I=1,99
29  NSAM(I)=0
      NMTP=1
      DO 30 I=1,NCASE
      DATA(100)=0.0
      READ (NTAPE,FMT)(DATA(J),J=1,NVAR)
      DO 31 J=1,LYNM
      CALL GRPSEL(J)
      IF(J.GT.0) GO TO 299
      READ (5,151)KODE,MCO
      IF(NMTP.EQ.0) GO TO 88
      REWIND ITAPE
88  IF(MCO.GE.33) GO TO 999
      READ (5,151)KODE
      GO TO 999
299  IF(DATA(100).LE.0.) GO TO 31
      KK=NG(J)
      NSAM(KK)=NSAM(KK)+1
      NMTP=1
      WRITE(ITAPE)(DATA(K),K=1,NVAR),DATA(100)
      GO TO 30
31  CONTINUE
30  CONTINUE
28  END FILE ITAPE
      REWIND ITAPE
      REWIND NTAPE
      IF(LYNM.LE.0) GO TO 43
      JJ=0
      DO 39 I=1,99
39  NG(I)=0
      DO 40 I=1,99
      IF(NSAM(I).LE.0) GO TO 40
      JJ=JJ+1
      NG(JJ)=NSAM(I)
      NSAM(I)=JJ
40  CONTINUE
      JX=MAX0(JJ,NGRPS)
      NGRPS=JJ
      J=0
      DO 45 I=1,JX
      NNG=0
      IF(NSAM(I).EQ.0) GO TO 41
      J=J+1
      NNG=NG(J)
41  IF(MOD(I,50).NE.1) GO TO 45
      WRITE(6,3) WHEN
      WRITE (6,115)
45  WRITE (6,116)I,NSAM(I),NNG
      GO TO 252
43  DO 251 I=1,NGRPS
251  NG(I)=NSAM(I)
252  NVAR=NVAR+NADD
      NCOV=NCOV+NADD-1
      DO 46 I=1,NVAR
      TOTXY(I)=0.0
      TREXY(I)=0.0
      ERRXY(I)=0.0
      DO 46 J=1,NVAR
      TOTXX(I,J)=0.0
      TREXX(I,J)=0.0
46  ERRXX(I,J)=0.0
      DO 47 I=1,NGRPS
      DO 47 J=1,NVAR
47  SSVAR(I,J)=0.0
      ASSIGN 490 TO MUD
      READ (5,152)TODE,MCO,(INDEX2(I),I=1,35)
      ZQQQ=A421
      IF(TODE.NE.A421) GO TO 446
      WRITE(6,3) WHEN
      WRITE (6,154)
      WRITE (6,153)TODE,MCO,(INDEX2(I),I=1,35)
      BACKSPACE 5
      READ (5,151)NCO,(INDEX2(I),I=1,35)
      IF(NCO.LE.32) GO TO 38
      READ (5,152)TODE,(INDEX2(I),I=33,35)
      IF(TODE.NE.A421) GO TO 446
      WRITE (6,153)TODE,(INDEX2(I),I=33,35)
      BACKSPACE 5
      READ (5,151)NCO,(INDEX2(I),I=33,35)
38  NNCO=NCO
      DO 44 I=1,NCO
      IF(INDEX2(I).LE.0) NNCO=NNCO-1
44  CONTINUE
      NCO=NNCO
      IF(NCO.GT.35.OR.(NGRPS+NCO+1).GT.NCASE) GO TO 448
      NCOV=NCO
      NVAR=NCO+1
      INDEX2(NVAR)=NDV
      IF(OUT.NE.A123) GO TO 475
      ASSIGN 417 TO MUD
      MESS=0
      LL=0
      IJ=50/(NCARD+2)
      IF(IJ.LE.0) IJ=1
      WRITE(6,3) WHEN
      WRITE (6,415)
475  DO 48 II=1,NGRPS
      LG=NG(II)
      DO 48 M=1,LG
      READ(ITAPE)(DATA(L),L=1,LR),DATA(100)
      GO TO MUD,(490,417)
417  MESS=MESS+1
      K=DATA(100)
      LL=LL+1
      IF(LL.LE.IJ) GO TO 51
      LL=1
      WRITE(6,3) WHEN
      WRITE (6,415)
51  WRITE (6,418)MESS,K
      DO 52 L=1,NCARD
      READ (NTAPE,114)(IX(KK),KK=1,8)
52  WRITE (6,250)(IX(KK),KK=1,8)
490  GO TO NSKIP,(49,50)
49  CALL TG41(II,M)

```

```

50 K=DATA(100)                                00002820
WRITE(JTAPE){DATA{INDEX2(JJ)},JJ=1,NVAR},DATA(100)
IF(LYNN.GT.0) K=NSAM(K)
DO 48 J=1,NVAR
I=INDEX2(J)
SSVAR(K,J)+SSVAR(K,J)+DATA(I)
DO 48 M=1,NVAR
L=INDEX2(M)
TOTXX(J,M)+TOTXX(J,M)+(DATA(I)+DATA(L))
48 CONTINUE
REWIND ITAPE
END FILE JTAPE
REWIND JTAPE
NT=0
DO 54 I=1,NGRPS
IL=I
IF((NG(I)-NCOV-1).LE.0)GO TO 1440
NT=NT+NG(I)
54 CONTINUE
DO 55 J=1,NVAR
X(J)=0.0
DO 55 I=1,NGRPS
55 X(J)=X(J)+SSVAR(I,J)/NT
BIG=NT
DO 58 I=1,NVAR
DO 58 J=1,NVAR
TOTXX(I,J)+TOTXX(I,J)-BIG*X(I)*X(J)
DO 56 K=1,NGRPS
T=NG(K)
TREXX(I,J)+TREXX(I,J)+(SSVAR(K,I)+SSVAR(K,J))/T
56 CONTINUE
TREXX(I,J)+TREXX(I,J)-BIG*X(I)*X(J)
58 ERRXX(I,J)+TOTXX(I,J)-TREXX(I,J)
DO 59 I=1,NGRPS
D(I)=NG(I)
DO 59 J=1,NVAR
59 SSVAR(I,J)=SSVAR(I,J)/D(I)
LL=0
IK=NVAR/6
IF((NVAR-1K+6).GT.0)IK=IK+1
J=50/(2*IK+3)
IF(IJ.LE.0)J=1
WRITE(6,3) WHEN
WRITE(6,117)
DO 63 LT=1,NVAR
LLL(LT)=2H (
I=INDEX2(LT)
DO 615 J=1,INAM
IF(I.EQ. INDEX1(J)) GO TO 625
615 CONTINUE
NITP=1
WRITE(ITAPE,888)I
REWIND ITAPE
READ(ITAPE,777)NAMES(LT)
REWIND ITAPE
GO TO 63
625 NAMES(LT)=KKK(J)
63 CONTINUE
DO 60 I=1,NGRPS
LL=LL+1

IF(LL.LE.IJ)GO TO 53
LL=1
WRITE(6,3) WHEN
WRITE(6,117)
53 WRITE(6,118)I
60 WRITE(6,119){LLL(J),NAMES(J),SSVAR(I,J),J=1,NVAR}
WRITE(6,3) WHEN
WRITE(6,70)
DO 69 I=1,NVAR
59 WRITE(6,71) NAMES(I),X(I)
IF(FCST.EQ.A123) GO TO 99
IF(CORR.WE.A123)GO TO 130
DO 129 I=1,NVAR
DO 129 J=1,NVAR
TOTCC(I,J)=0.0
TRECC(I,J)=0.0
ERRCC(I,J)=0.0
TOT=TOTXX(I,I)+TOTXX(J,J)
TRE=TREXX(I,I)+TREXX(J,J)
ERR=ERRXX(I,I)+ERRXX(J,J)
IF(TOT.LE.0)GO TO 128
TOTCC(I,J)=TOTXX(I,J)/SQRT(TOT)
128 IF(TRE.LE.0)GO TO 135
TRECC(I,J)=TREXX(I,J)/SQRT(TRE)
135 IF(ERR.LE.0)GO TO 129
ERRCC(I,J)=ERRXX(I,J)/SQRT(ERR)
129 CONTINUE
WRITE(6,3) WHEN
WRITE(6,127)
WRITE(6,121)
CALL PATTY2(TOTCC,NVAR,NAMES,1.)
WRITE(6,3) WHEN
WRITE(6,127)
WRITE(6,123)
CALL PATTY2(ERRCC,NVAR,NAMES,1.)
130 WRITE(6,3) WHEN
WRITE(6,120)
WRITE(6,121)
CALL PATTY2(TOTXX,NVAR,NAMES,1.)
WRITE(6,3) WHEN
WRITE(6,120)
WRITE(6,122)
CALL PATTY2(TREXX,NVAR,NAMES,1.)
WRITE(6,3) WHEN
WRITE(6,120)
WRITE(6,123)
CALL PATTY2(ERRXX,NVAR,NAMES,1.)
DO 64 I=1,NVAR
TOTXY(I)=TOTXX(I,NVAR)
TREXY(I)=TREXX(I,NVAR)
54 ERRXY(I)=ERRXX(I,NVAR)
TOTYY=TOTXY(NVAR)
TREYY=TREXY(NVAR)
ERRYY=ERRXY(NVAR)
K=0
DO 72 I=1,NCOV
DO 72 J=1,NCOV
K=K+1
72 Z(K)=DBLE(TOTXX(J,I))
CALL MINV(Z,NCOV,DT,IY,IZ)

```

```

K=0
DO 73 I=1,NCOV
DO 73 J=1,NCOV
K=K+1
73 TOTXX(J,I)=SNGL(Z(K))
K=0
DO 74 I=1,NCOV
DO 74 J=1,NCOV
K=K+1
74 Z(K)=DBLE(TREXX(J,I))
CALL MINV(Z,NCOV,DB,LY,IZ)
K=0
DO 75 I=1,NCOV
DO 75 J=1,NCOV
K=K+1
75 TREXX(J,I)=SNGL(Z(K))
K=0
DO 76 I=1,NCOV
DO 76 J=1,NCOV
K=K+1
76 Z(K)=DBLE(ERRXX(J,I))
CALL MINV(Z,NCOV,DE,LY,IZ)
K=0
DO 77 I=1,NCOV
DO 77 J=1,NCOV
K=K+1
77 ERRXX(J,I)=SNGL(Z(K))
WRITE(6,3) WHEN
WRITE (6,124)
WRITE (6,121)
CALL PATTY2(TOTXX,NCOV,NAMES,SNGL(DT))
WRITE(6,3) WHEN
WRITE (6,124)
WRITE (6,122)
CALL PATTY2(TREXX,NCOV,NAMES,SNGL(DB))
WRITE(6,3) WHEN
WRITE (6,124)
WRITE (6,123)
CALL PATTY2(ERRXX,NCOV,NAMES,SNGL(DE))
DO 65 I=1,NCOV
B(I)=0.0
C(I)=0.0
D(I)=0.0
DO 65 J=1,NCOV
B(I)=B(I)+ERRXX(I,J)*ERRXX(J)
C(I)=C(I)+TOTXX(I,J)*TOTXX(J)
D(I)=D(I)+TREXX(I,J)*TREXX(J)
65 SSDTRE=0.0
SSDTOT=0.0
SSDERR=0.0
DO 66 I=1,NCOV
SSDERR=SSDERR+B(I)*ERRXX(I)
SSDTRE=SSDTRE+D(I)*TREXX(I)
66 SSDTOT=SSDTOT+C(I)*TOTXX(I)
SSDTRE=SSDTOT-SSDERR
SSATRE=TREYY-SSDTRE
SSATOT=TOTYY-SSDTOT
SSAERR=ERRYY-SSDERR
N1=NGRPS-1
N2=BIG
00003480
00003500
00003520
00003530
00003550
00003560
00003580
00003590
00003600
00003610
00003620
00003630
00003640
00003650
00003660
00003670
00003680
00003690
00003700
00003710
00003720
00003730
00003740
00003750
00003760
00003770
00003780

N2=N2-NGRPS
N3=BIG-1.0
N4=N1
N5=N2-NCOV
N6=N3-NCOV
TEST=SSATOT-SSAERR
DN4=N4
DN5=N5
DN6=N6
DN1=N1
SMATRE=SSATRE/DN4
SMAERR=SSAERR/DN5
ADJTES=TEST/DN1
FTEST=ADJTES/SMAERR
SMATOT=SSATOT/DN6
CALL WRT(N1,N2,N3,N4,N5,N6,TREYY,ERRYY,TOTYY,SSDERR,SSAERR,SMAERR,00003940
*SSDTOT,SSATOT,TEST,FTEST,ADJTES,NCOV,SMATOT,BIG,NGRPS,NAMES,ERRXX,00003950
XTOTXX,TREXX,SMATRE,SSDTRE,SSATRE)
99 DO 604 I=1,NGRPS
VWG(I)=0.
SS(I)=0.
604 YY(I)=0.
VW=0.
VT=0.
VL=0.
DO 601 I=1,NT
READ(JTAPE)(DATA(J),J=1,NVAR),DATA(100)
K=DATA(100)
IF(LYNN.GT.0) K=NSAM(K)
ZEST=YAC
YEST=A(K)
DO 600 J=1,NCOV
ZEST=ZEST+C(J)*DATA(J)
600 YEST=YEST+B(J)*DATA(J)
RES=DATA(NVAR)-YEST
RES1=DATA(NVAR)-ZEST
WRITE(8) RES
VWG(K)=VWG(K)+ABS(RES)
VW=VW+ABS(RES)
VT=VT+ABS(RES1)
PVAR=100.*RES/YEST
IF(ABS(RES).LE.VL)GO TO 592
VL=ABS(RES)
VVL=RES
VEST=YEST
PAR=PVAR
DAT=DATA(NVAR)
IA=1
IB=K
592 SS(K)=SS(K)+(RES=RES)
YY(K)=YY(K)+((DATA(NVAR)-SSVAR(K,NVAR))
C=(DATA(NVAR)-SSVAR(K,NVAR)))
IF(WRES.NE.A123) GO TO 601
IF(MOD(I,50).NE.1)GO TO 599
WRITE(6,3) WHEN
WRITE(6,596)
WRITE(6,602)
599 WRITE(6,603)I,DATA(NVAR),YEST,RES,PVAR,K
601 CONTINUE
ENDFILE 8

```

```

REWIND 8
WRITE(6,3) WHEN
WRITE(6,594)
WRITE(6,602)
WRITE(6,603) IA, DAT, VEST, VVL, PAR, IB
DO 598 I=1, NGRPS
598 VWG(I)=VWG(I)/FLOAT(NG(I)-1)
VW=VW/FLOAT(NT-1)
VT=VT/FLOAT(NT-1)
REWIND JTAPE
VL=0.
DO 608 I=1, NT
READ(JTAPE)(DATA(J), J=1, NVAR), DATA(100)
K=DATA(100)
IF(LYNN .GT. 0) K=NSAM(K)
ZEST=A(K)
YEST=YAC
DO 609 J=1, NCOV
ZEST=ZEST+B(J)*DATA(J)
609 YEST=YEST+C(J)*DATA(J)
RES=DATA(NVAR)-YEST
RESI=DATA(NVAR)-ZEST
WRITE(9) RES
PVAR=100.*RES/YEST
IF(ABS(RES).LE.VL)GO TO 593
VL=ABS(RES)
VVL=RES
VEST=YEST
PAR=PVAR
DAT=DATA(NVAR)
IA=1
593 IF(TRES .NE. A123) GO TO 608
IF(MOD(I,50).NE.1)GO TO 610
WRITE(6,3) WHEN
WRITE(6,597)
WRITE(6,611)
610 WRITE(6,612) I, DATA(NVAR), YEST, RES, PVAR
608 CONTINUE
ENDFILE 9
REWIND 9
WRITE(6,3) WHEN
WRITE(6,595)
WRITE(6,611)
WRITE(6,612) IA, DAT, VEST, VVL, PAR
IF(MCOR.NE.A123)GO TO 634
WRITE(6,3) WHEN
IF((SSDERR/ERRYY).LT.0.)GO TO 632
SE=SQRT(SSDERR/ERRYY)
IF(SE.GT.1.)GO TO 632
WRITE(6,627) SE
632 IF((SSDOT/TOTYY).LT.0.)GO TO 633
ST=SQRT(SSDOT/TOTYY)
IF(ST.GT.1.)GO TO 633
WRITE(6,628) ST
633 WRITE(6,629)
DO 631 I=1, NGRPS
IF((SS(I)/YY(I)).GT.1.)GO TO 631
SEW=SQRT(1.-(SS(I)/YY(I)))
IF(SEW.GT.1.)GO TO 631
IF((MOD(I,50).NE.1).OR.(I.EQ.1))GO TO 626

WRITE(6,3) WHEN
WRITE(6,629)
626 WRITE(6,630) I, SEW
631 CONTINUE
634 LN=0
552 REWIND JTAPE
REWIND 8
REWIND 9
DO 551 I=1, NGRPS
NCG(I)=NG(I)
551 SDWG(I)=0.
SDW=0.
SDT=0.
NC=NT
ND=NT
DO 557 I=1, NT
READ(JTAPE)(DATA(J), J=1, NVAR), DATA(100)
K=DATA(100)
IF(LYNN .GT. 0) K=NSAM(K)
READ(8) RES
READ(9) RESI
IF(VWG(K).LE.0.)GO TO 540
GS=.5*(RES/VWG(K))*(RES/VWG(K))
IF(GS.GT.12.5)GO TO 540
SG=SER(GS)/VWG(K)
SYG=EXP(GS)
GO TO 549
540 NCG(K)=NCG(K)-1
GO TO 550
549 SDWG(K)=SDWG(K)+(SYG/SG)
550 IF(VW.LE.0.)GO TO 541
SXX=.5*(RES/VW)*(RES/VW)
IF(SXX.GT.12.5)GO TO 541
SX=SER(SXX)/VW
SY=EXP(SXX)
GO TO 554
541 NC=NC-1
GO TO 555
554 SDW=SDW+(SY/SX)
555 IF(VT.LE.0.)GO TO 542
SXA=.5*(RESI/VT)*(RESI/VT)
IF(SXA.GT.12.5)GO TO 542
SA=SER(SXA)/VT
SYI=EXP(SXA)
GO TO 556
542 ND=ND-1
GO TO 557
556 SDT=SDT+(SYI/SA)
557 CONTINUE
DO 543 I=1, NGRPS
IF((NCG(I).LE.0).OR.(SDWG(I).LE.0))GO TO 543
VWG(I)=.5*(VWG(I)+(SDWG(I)/FLOAT(NCG(I))))
543 CONTINUE
IF((NC.LE.0).OR.(SDW.LE.0))GO TO 544
VW=.5*(VW+(SDW/FLOAT(NC)))
544 IF((ND.LE.0).OR.(SDT.LE.0))GO TO 545
VT=.5*(VT+(SDT/FLOAT(ND)))
545 LN=LN+1
IF(LN.LT.20)GO TO 552
WRITE(6,3) WHEN

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```

WRITE(6,301) VT
WRITE(6,300) VW
WRITE(6,302)
DO 613 I=1,NGRPS
IF((MOD(I,50).NE.1).OR.(I.EQ.1))GO TO 613
WRITE(6,3) WHEN
WRITE(6,302)
613 WRITE(6,303) I,VWG(I)
IF((FCAST.EQ.A123).OR.(SSQ.NE.A123))GO TO 618
DO 606 I=1,NGRPS
IF((MOD(I,50).NE.1))GO TO 614
WRITE(6,3) WHEN
WRITE(6,605)
614 XA=YY(I)-SS(I)
IF(XA.LT.0.)GO TO 606
IF((NG(I)-NCOV-1).GT.0)GO TO 617
WRITE(6,607)I,YY(I),XA,SS(I)
GO TO 606
617 XX=SQRT(SS(I)/FLOAT(NG(I)-NCOV-1))
WRITE(6,607)I,YY(I),XA,SS(I),XX
606 CONTINUE
618 NLAST=NTAPE                                00003960
REWIND JTAPE
IF(VAR.NE.A123)GO TO 621
WRITE(6,3) WHEN
WRITE(6,419),
MESS=0
LL=0
IK=NVAR/8
IF((NVAR-1K=8).GT.0)IK=IK+1
IJ=50/(IK+2)
IF(IJ.LE.0)IJ=1
DO 620 I=1,NT
MESS=MESS+1
READ(JTAPE)(DATA(J),J=1,NVAR),DATA(100)
K=DATA(100)
IF(LYNN.GT.0) K=NSAM(K)
LL=LL+1
IF(LL.LE.IJ)GO TO 618
LL=1
WRITE(6,3) WHEN
WRITE(6,419)
616 WRITE(6,418)MESS,K
620 WRITE(6,249)(DATA(J),J=1,NVAR)
621 WRITE(6,5)
GO TO 999
70 FORMAT(/23H TABLE OF MEANS (TOTAL)/21H VARIABLE MEAN/)
71 FORMAT(3X,A6,3X,E13,7)
125 FORMAT(/13H LABELS CARDS/)
126 FORMAT(7(5X,A4,A6))
127 FORMAT(19H-CORRELATION MATRIX)
594 FORMAT(/,26H MAXIMUM RESIDUAL (WITHIN))
595 FORMAT(/,25H MAXIMUM RESIDUAL (TOTAL))
596 FORMAT(/,28H TABLE OF RESIDUALS (WITHIN))
597 FORMAT(/,27H TABLE OF RESIDUALS (TOTAL))
602 FORMAT(/9H CASE NO.,6X,7HY VALUE,5X,10HY ESTIMATE,5X,8HRESIDUAL
1,3X,17HPERCENT VARIATION,2X,10HGROUP NO. / )
611 FORMAT(/9H CASE NO.,6X,7HY VALUE,5X,10HY ESTIMATE,5X,8HRESIDUAL
1,3X,17HPERCENT VARIATION / )
603 FORMAT(2X,15,4X,E13,7,1X,E13,7,1X,E13,7,5X,F9,2,9X,I3)

612 FORMAT(2X,15,4X,E13,7,1X,E13,7,1X,E13,7,5X,F9,2)
605 FORMAT(/50H TABLE OF SUM-SQUARES AND STANDARD ERRORS (WITHIN)/61
1H TREATMENT YY SUM-SQUARES SUM-SQUARES STANDARD/59H
2 NO. (DUE) (ABOUT) ERROR./ )
607 FORMAT(1X,15,3X,E13,7,1X,E13,7,1X,E13,7,1X,E13,7)
627 FORMAT(/,36H CORRELATION COEFFICIENT (TOTAL) = ,E16,10)
628 FORMAT(/,36H CORRELATION COEFFICIENT (WITHIN) = ,E16,10)
629 FORMAT(/,25H TREATMENT CORRELATION,/,25H NO. COEFFICIE
INT,/,16X,8H(WITHIN)./)
630 FORMAT(1X,15,6X,E16,10)
403 FORMAT(48HNEGATIVE NUMBER IS ILLEGAL FOR NUMBER OF LABELS)
1090 FORMAT(26H0THE VARIABLE FORMAT CARDS/)
100 FORMAT(246,12,15,272,13,12,A3,13,A3,12,4A3,3X,4A3,3I2)
103 FORMAT(33H PROBLEM CODE.....A6/
1 33H NUMBER OF TREATMENT GROUPS.....16/
2 33H TOTAL NUMBER OF CASES.....16/
3 33H NUMBER OF CARDS PER CASE.....16/
4 33H NUMBER OF ENTERING VARIABLES.....16/
5 33H NUMBER OF VARIABLES ADDED.....16/
6 33H INDEX OF THE DEPENDENT VARIABLE.....16/
7 33H PRINT DATA INPUT.....3X,A3/
8 33H NUMBER OF VARIABLES NAMED.....16/
9 33H USE DATA CARDS OF LAST PROBLEM.....3X,A3/
* 33H NUMBER OF GROUP DEFINITION CARDS,16/
1 33H PRINT RESIDUALS (WITHIN).....3X,A3/
2 33H PRINT RESIDUALS (TOTAL).....3X,A3/
3 33H PRINT TRANSGENERATED VARIABLES.....3X,A3/
4 33H PRINT CORRELATION MATRICES.....3X,A3/
5 33H FORECAST DATA INPUT.....3X,A3/
6 33H REWIND INPUT TAPE.....3X,A3/
7 33H NUMBER OF TRANSGENERATION CARDS.....16/
8 33H SPECIFIED 8CD TAPE NUMBER.....16/
9 33H NUMBER OF VARIABLE FORMAT CARDS.....16)
104 FORMAT(/23H TRANS-GENERATION CARDS/)
105 FORMAT(30H CARD NEW TRANS OLD CONST./33H NO. VAR. CODE VAR(A00004840
1) OR VAR(B)/)
106 FORMAT(A6,13,12,13,F8,0)
107 FORMAT(14,15,16,15,4X,F10,5)
108 FORMAT(A6,22I3)
109 FORMAT(A6,22A3)
110 FORMAT(23H0GROUP DEFINITION CARDS)
111 FORMAT(A6,12,6(12,A2,F5,0,A1))
112 FORMAT(/20H0A CASE IS IN GROUP I2,4H IF,1)
113 FORMAT(5H VAR(I2,5H) IS A2,1H F10,5,1H A1)
114 FORMAT(8A10)
115 FORMAT(/26H GROUP NO. SAMPLE/25H SPECIFIED ASSIGNED* SIZE00004950
//)
116 FORMAT(5X,12,7X,12,4X,15)
117 FORMAT(/30H VARIABLE MEANS FOR EACH GROUP/)
118 FORMAT(/11H GROUP NO. I2/)
119 FORMAT(6(A2,A6,E13,7,*)//)
120 FORMAT(41H-SUMS OF SQUARES AND CROSS PRODUCT MATRIX)
121 FORMAT(11H FOR TOTAL//)
122 FORMAT(15H FOR TREATMENT//)
123 FORMAT(11H FOR ERROR//)
124 FORMAT(26H-INVERSE OF THE COVARIATES/21H CROSS PRODUCT MATRIX)
150 FORMAT(1H029X20HTRANSGENERATION CARDI3,35H HAS INVALID CODE FOR TH00005390
115 PROGRAM.)
151 FORMAT(6X,36I2)
152 FORMAT(A6,36A2)

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B - 11



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      M(K)=K
      KK=KK+K
      BIGA=A(KK)
      DO 20 J=K,N
      IZ=K+(J-1)
      DO 20 I=K,N
      IJ=IZ+I
10  IF(DABS(BIGA)-DABS(A(IJ))) 15,20,20
15  BIGA=A(IJ)
      L(K)=I
      M(K)=J
20  CONTINUE
C
C      INTERCHANGE ROWS
C
      J=L(K)
      IF(J-K) 35,35,25
25  KI=K-N
      DO 30 I=1,N
      KI=KI+N
      HOLD=-A(KI)
      JI=KI-K+J
      A(KI)=A(JI)
30  A(JI)=HOLD
C
C      INTERCHANGE COLUMNS
C
      I=M(K)
      IF(I-K) 45,45,38
38  JP=N+(I-1)
      DO 40 J=1,N
      JK=NK+J
      JI=JP+J
      HOLD=-A(JK)
      A(JK)=A(JI)
40  A(JI)=HOLD
C
C      DIVIDE COLUMN BY MINUS PIVOT (VALUE OF PIVOT ELEMENT IS
C      CONTAINED IN BIGA)
C
45  IF(BIGA) 48,46,48
46  D=0.0
      RETURN
48  DO 55 I=1,N
      IF(I-K) 50,55,50
50  IK=NK+I
      A(IK)=A(IK)/(-BIGA)
55  CONTINUE
C
C      REDUCE MATRIX
C
      DO 65 I=1,N
      IK=NK+I
      HOLD=A(IK)
      IJ=I-N
      DO 65 J=1,N
      IJ=IJ+N
      IF(I-K) 60,65,60
60  IF(J-K) 62,65,62
62  KJ=IJ-I+K
      A(IJ)=HOLD+A(KJ)+A(IJ)
65  CONTINUE
C
C      DIVIDE ROW BY PIVOT
C
      KJ=K-N
      DO 75 J=1,N
      KJ=KJ+N
      IF(J-K) 70,75,70
70  A(KJ)=A(KJ)/BIGA
75  CONTINUE
C
C      PRODUCT OF PIVOTS
C
      D=D*BIGA
C
C      REPLACE PIVOT BY RECIPROCAL
C
      A(KK)=1.0/BIGA
80  CONTINUE
C
C      FINAL ROW AND COLUMN INTERCHANGE
C
      K=N
100 K=(K-1)
      IF(K) 150,150,105
105 I=L(K)
      IF(I-K) 120,120,108
108 JQ=N+(K-1)
      JR=N+(I-1)
      DO 110 J=1,N
      JK=JQ+J
      HOLD=A(JK)
      JI=JR+J
      A(JK)=-A(JI)
110 A(JI)=HOLD
120 J=M(K)
      IF(J-K) 100,100,125
125 KI=K-N
      DO 130 I=1,N
      KI=KI+N
      HOLD=A(KI)
      JI=KI-K+J
      A(KI)=-A(JI)
130 A(JI)=HOLD
      GO TO 100
150 RETURN
      END

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```

MINV 610
MINV 620
MINV 630
MINV 640
MINV 650
MINV 660
MINV 670
MINV 680
MINV 690
MINV 700
MINV 710
MINV 720
MINV 730
MINV 740
MINV 750
MINV 760
MINV 770
MINV 780
MINV 790
MINV 800
MINV 810
MINV 820
MINV 830
MINV 840
MINV 850
MINV 860
MINV 870
MINV 880
MINV 890
MINV 900
MINV 910
MINV 920
MINV 930
MINV 940
MINV 950
MINV 960
MINV 970
MINV 980
MINV 990
MINV 1000
MINV 1010
MINV 1020
MINV 1030
MINV 1040
MINV 1050
MINV 1060
MINV 1070
MINV 1080
MINV 1090
MINV 1100
MINV 1110
MINV 1120
MINV 1130
MINV 1140
MINV 1150
MINV 1160
MINV 1170
MINV 1180
MINV 1190
MINV 1200
MINV 1210
MINV 1220
MINV 1230
MINV 1240
MINV 1250
MINV 1260
MINV 1270
MINV 1280
MINV 1290
MINV 1300
MINV 1310
MINV 1320
MINV 1330
MINV 1340
MINV 1350
MINV 1360
MINV 1370
MINV 1380
MINV 1390
MINV 1400
MINV 1410
MINV 1420
MINV 1430
MINV 1440
MINV 1450
MINV 1460
MINV 1470
MINV 1480
MINV 1490
MINV 1500
MINV 1510
MINV 1520
MINV 1530
MINV 1540
MINV 1550
MINV 1560
MINV 1570
MINV 1580
MINV 1590
MINV 1600
MINV 1610
MINV 1620
MINV 1630
MINV 1640
MINV 1650
MINV 1660
MINV 1670
MINV 1680

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# NADC-77036-30

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C          SUBROUTINE GRPSEL FOR BMD04V          APRIL 1, 1966          00005900
          SUBROUTINE GRPSEL(M)
          DIMENSION DATA(100), NSUB(99,6), CONT(99,6), REL(99,6), OPER(99,6), B(6) 00005910
          I, NG(99), E(7)
          COMMON DATA , NSUB , CONT , REL , OPER , NG 00005920
          DATA A, O, STAR, E/4HA ,4HO ,4H* ,4HGT ,4HLT ,4HLE ,4HGE , 00005930
          I 2HEQ,2HNE,2H / 00005940
          FB=1.0 00005950
          ASSIGN 105 TO ISKIP 00005960
          DO 90 I=1,6 00005970
          IS=NSUB(M,I) 00005980
          IF(REL(M,I) .EQ. E(1)) GO TO 2 00005990
          IF(REL(M,I) .EQ. E(2)) GO TO 4 00006000
          IF(REL(M,I) .EQ. E(3)) GO TO 6 00006010
          IF(REL(M,I) .EQ. E(4)) GO TO 8 00006020
          IF(REL(M,I) .EQ. E(5)) GO TO 10 00006030
          IF(REL(M,I) .EQ. E(6)) GO TO 11 00006040
          IF(REL(M,I) .EQ. E(7)) GO TO 100 00006050
          96 WRITE (6,4000)REL(M,I) 00006060
          M=M+6 00006070
          GO TO 104 00006080
          2 IF(DATA(IS)-CONT(M,I))50,50,20 00006090
          4 IF(DATA(IS)-CONT(M,I))20,50,50 00006100
          6 IF(DATA(IS)-CONT(M,I))20,20,50 00006110
          8 IF(DATA(IS)-CONT(M,I))50,20,20 00006120
          10 IF(DATA(IS)-CONT(M,I))50,20,50 00006130
          11 IF(DATA(IS)-CONT(M,I))20,50,20 00006140
          20 B(I)=1.0 00006150
          GO TO 90 00006160
          50 B(I)=0.0 00006170
          90 CONTINUE 00006180
          100 GO TO ISKIP,(105,125) 00006190
          125 IF(OPER(M-1,6) .NE. A) GO TO 150 00006200
          FB=FB*B(I) 00006210
          GO TO 175 00006220
          105 IF(OPER(M,I) .EQ. A) GO TO 147 00006230
          IF(OPER(M,I) .NE. O) GO TO 170 00006240
          147 FB=B(I) 00006250
          GO TO 175 00006260
          150 IF(OPER(M-1,6) .EQ. O) GO TO 152 00006270
          I = 6 00006280
          REL(M,6)=OPER(M-1,6) 00006290
          GO TO 96 00006300
          170 FB=B(I) 00006310
          GO TO 350 00006320
          152 IF(FB .LE. 0.) GO TO 147 00006330
          175 DO 300 I=1,5 00006340
          IF(OPER(M,I) .NE. A) GO TO 222 00006350
          FB = FB*B(I+1) 00006360
          GO TO 300 00006370
          222 IF(OPER(M,I) .NE. O) GO TO 333 00006380
          IF(FB .GT. 0.) GO TO 300 00006390
          FB=B(I+1) 00006400
          300 CONTINUE 00006410
          IF(OPER(M,6) .EQ. STAR) GO TO 350 00006420
          M=M+1 00006430
          ASSIGN 125 TO ISKIP 00006440
          GO TO 500 00006450
          333 IF(OPER(M,I) .EQ. STAR) GO TO 350 00006460
          REL(M,I)=OPER(M,I) 00006470
          350 GO TO 96 00006480
          IF(FB .LE. 0.) GO TO 104 00006490
          DATA(100) = NG(M) 00006500
          104 RETURN 00006510
          4000 FORMAT(1H0)4X30HILLEGAL OPERATION OR RELATION A2.57H. PROGRAM WILL 00006520
          1 PROCEED TO NEXT JOB, IF ANY, OR TERMINATE.) 00006530
          END 00006540
          00006550
          00006560

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```

C          SUBROUTINE PATTY2 FOR BMD04V          APRIL 1, 1966          00006570
SUBROUTINE PATTY2 (A,N,NAMES,D)
DIMENSION NAMES(36),NN(8),A(36,36),WHEN(3)          00006590
REAL NAMES,NN          00006600
CALL LDAY(WHEN)
K=0
IK=50/(N+3)
IF(IK.LE.0)IK=1
IT=1          00006610
KK=0          00006620
K1=IT          00006630
K2=MINO(B,N)          00006640
10 KK=KK+8          00006650
IF(N .LE. KK) GO TO 20          00006660
IT=IT+1          00006670
GO TO 10          00006680
20 DO 70 JX=1,IT          00006690
LLL=K2-K1+1          00006700
LL=0          00006710
DO 30 JJ=K1,K2          00006720
LL=LL+1          00006730
30 NN(LL)=NAMES(JJ)          00006740
K=K+1
IF(K.LE.IK)GO TO 31
K=1
WRITE(6,71) WHEN
31 WRITE (6,50) (NN(II),II=1,LLL)
WRITE (6,80)
DO 40 I=1,N          00006750
40 WRITE (6,60)NAMES(I),(A(I,J),J=K1,K2)          00006770
K1=K2+1          00006780
K2=K1+7          00006790
K2=MINO(K2,N)          00006800
50 FORMAT(1H0,13X,A6,7(8X,A6) )
60 FORMAT(1H ,A6,1X,8E14,7)
80 FORMAT(1H )
90 FORMAT(//17H SINGULAR MATRIX.)
70 CONTINUE          00006830
71 FORMAT(1H1,105X,3A10,7(/))
IF(D .EQ. 0.) WRITE (6,90)
RETURN          00006840
END          00006850

```

```

SUBROUTINE TG41(II,M)          00006860
DIMENSIONDATA(100),NSUB(99,6),CONT(99,6),REL(99,6),OPER(99,6),NG(99,6)          00006870
191,NEW(99),JUMP(99),NA(99),BN(99)          00006880
COMMON DATA , NSUB , CONT , REL , OPER , NG          00006890
COMMON LH , NEW , JUMP , NA , BN , IERROR          00006900
COMMON NVAR , NTG , NCASE          00006910
EXTERNAL SIGN          00006915
ASN(X) = ATAN(X/SQRT(1.-X**2))          00006920
SAMPX=NCASE          00006930
PI2=1.57079633          00006940
DO 1010 I=1,NTG          00006950
JOKI=JUMP(I)          00006960
NW=NEW(I)          00006970
IF(NW .GE. 100) GO TO 97          00006980
NAA=NA(I)          00006990
IF(NAA .GE. 100) GO TO 97          00007000
100 NB=BN(I)          00007010
BBN=BN(I)          00007020
DI=DATA(NAA)          00007030
IF(JOKI .LE. 17) GO TO 33          00007040
JOKI=JOKI-2          00007050
IF(JOKI .LE. 22) GO TO 33          00007060
JOKI=23          00007070
33 GO TO (1,2,3,4,5,6,7,8,9,10,111,111,111,111,150,111,170,180,190,200)JOKI          00007080
1,21,22,230)JOKI          00007090
1 IF( D1 )99,11,12          00007100
11 D2=0.0          00007110
GO TO 1000          00007120
12 D2=SQRT(D1)          00007130
GO TO 1000          00007140
2 IF( D1 )99,13,14          00007150
13 D2=1.0          00007160
GO TO 1000          00007170
14 D2 =SQRT( D1 )+SQRT( D1 +1.0)          00007180
GO TO 1000          00007190
3 IF( D1 .LE. 0.) GO TO 99          00007200
D2=ALOG10(D1)          00007210
GO TO 1000          00007220
4 D2=EXP(D1)          00007230
GO TO 1000          00007240
5 IF( D1 )99,11,17          00007250
17 IF( D1 -1.0)18,19,99          00007260
19 D2=PI2          00007270
GO TO 1000          00007280
18 A=SQRT(D1)          00007290
D2=ASN(A)          00007300
GO TO 1000          00007310
6 A= D1 /(SAMPX+1.0)          00007320
B=A+1.0/(SAMPX+1.0)          00007330
IF(A)99,27,24          00007340
27 D2 =ASN(SQRT(B))          00007350
GO TO 1000          00007360
24 IF(B)99,28,29          00007370
28 IF(A-1.0)285,287,99          00007380
285 D2 =ASN(SQRT(A))*2.0          00007390
GO TO 1000          00007400
287 D2 =3.14159265          00007410
GO TO 1000          00007420
29 A=SQRT(A)          00007430
B=SQRT(B)          00007440

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IF(A .GT. 1. .OR. B .GT. 1.) GO TO 99
D2 =ASN(A)+ASN(B)
GO TO 1000
7 IF( D1 .EQ. 0.) GO TO 99
D2 =1.0/D1
GO TO 1000
8 D2=D1*BBN
GO TO 1000
9 D2=D1*BBN
GO TO 1000
10 IF( D1 )99,11,32
32 D2=D1*BBN
GO TO 1000
111 IF(NB .GE. 100) GO TO 97
NSKIP=J0KE-10
GO TO(110,120,130,140,150,160),NSKIP
110 D2 = D1 *DATA(NB)
GO TO 1000
120 D2 = D1 *DATA(NB)
GO TO 1000
130 D2 = D1 *DATA(NB)
GO TO 1000
140 IF(DATA(NB) .EQ. 0.) GO TO 98
D2 = D1 /DATA(NB)
GO TO 1000
150 IF( D1 -BBN)11,13,13
160 IF( D1 -DATA(NB))11,13,13
170 IF( D1 .LE. 0.) GO TO 99
D2 =ALOG(D1)
GO TO 1000
180 D2 =SIN(D1)
GO TO 1000
190 D2 =COS(D1)
GO TO 1000
20 D2=ATAN(D1)
GO TO 1000
21 IF( D1 )99,11,38
38 IF(NB .GE. 100) GO TO 97
D2=D1*DATA(NB)
GO TO 1000
22 IF(BBN)99,11,40
40 D2=BBN*D1
GO TO 1000
230 IF( D1 .NE. 0.) GO TO 1000
IF(SIGN(10.0, D1 ))43,1000,1000
43 D2=BBN
GO TO 1000
97 WRITE (6,4001)I
GO TO 991
98 NAA=NB
99 WRITE (6,4000)NAA,JUMP(I),I,I,M
991 WRITE (6,4002)
GO TO 1010
1000 DATA(MW)=D2
1010 CONTINUE
RETURN
4000 FORMAT(17H0DATA OF VARIABLEI4,30H VIOLATES RESTRICTION FOR CODEI3,00008020
130H. THIS WAS FOR TREATMENT GROUPI3,7H SAMPLEI4)
4001 FORMAT(20H0TRANSGENERATOR CARDI3,44H HAS VARIABLE NUMBERS TOO LARG00008040
1E FOR PROGRAM.)
4002 FORMAT(32H THE DATA WILL REMAIN UNCHANGED.)
END

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00007450
00007460
00007470
00007480
00007490
00007500
00007520
00007530
00007540
00007550
00007560
00007570
00007580
00007590
00007600
00007610
00007620
00007630
00007640
00007650
00007660
00007670
00007680
00007690
00007700
00007710
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00007880
00007890
00007900
00007910
00007920
00007930
00007940
00007950
00007960
00007970
00007980
00007990
00008000
00008010
00008020
00008030
00008040
00008050
00008060
00008070

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C          SUBROUTINE TPWD FOR BMD04V          APRIL 1, 1966          00008080
          SUBROUTINE TPWD(NT1,NT2)
          IF(NT1)40,10,12          00008090
          IF(NT1)40,10,12          00008100
10          NT1=5          00008110
12          IF(NT1 .EQ. NT2) GO TO 19          00008120
          IF(NT2.EQ.5)GO TO 18          00008130
          REWIND NT2          00008140
19          IF(NT1 .EQ. 5) GO TO 24          00008150
18          IF(NT1 .EQ. 6) GO TO 40          00008160
          REWIND NT1          00008170
24          NT2=NT1          00008180
          RETURN          00008190
40          WRITE (6,49)          00008200
          STOP          00008210
49          FORMAT(25H ERROR ON TAPE ASSIGNMENT)          00008220
          END          00008225

          SUBROUTINE WRT(N1,N2,N3,N4,N5,N6,TREYY,ERRYY,TOTYY,SSDERR,SSAERR, 00008230
          ISMAERR,SSDTOT,SSATOT,TEST,FTEST,ADJTES,NCOV,SMATOT,BIG,NGRPS,NAMES00008240
          2,ERRXX,TOTXX,TREXX,SMATRE,SSDTRE,SSATRE)
          REAL NAMES          00008250
          DIMENSION DATA(100),NSUB(99,6),CONT(99,6),REL(99,6),OPER(99,6), 00008270
          *NG(99),X(36),SSVAR(99,36),TOTXX(36,36),ERRXX(36,36),B(35),C(35), 00008280
          ID(35),SEB(35),SEC(35),ADY(99),SEADY(99),NAMES(36),A(99)
          2,TREXX(36,36),SED(35),WHEN(3)
          COMMON DATA,NSUB,CONT,REL,OPER,NG          00008300
          COMMON LH,NEW(99),JUMP(99),NA(99),BN(99),IERROR          00008302
          COMMON NVAR,NTG,NCASE          00008304
          COMMON /WT/A,B,C,D,SEB,SEC,SED,SSVAR,ADY,SEADY,YAC,WHEN
          PRINT 124,WHEN          00008320
          PRINT 125          00008330
          PRINT 126          00008340
          PRINT 127          00008350
          PRINT 128          00008360
          PRINT 129          00008370
          PRINT 127          00008380
          PRINT 130          00008390
          PRINT 127          00008400
          PRINT 131
          PRINT 132,N1,TREYY          00008420
          PRINT 127          00008430
          PRINT 130          00008440
          PRINT 127
          PRINT 133,N2,ERRYY,SSDERR,SSAERR,N5,ISMAERR
          PRINT 134
          PRINT 130          00008470
          PRINT 127          00008480
          PRINT 131          00008490
          PRINT 136,N3,TOTYY,SSDTOT,SSATOT,N6,SMATOT
          PRINT 137
          PRINT 127          00008520
          PRINT 130          00008530
          PRINT 127          00008540
          PRINT 127          00008550
          PRINT 138 ,TEST,N1,ADJTES          00008560
          PRINT 127          00008570
          PRINT 126          00008580
          PRINT 139          00008590
          PRINT 140 ,N1,N5,FTEST
          PRINT 124,WHEN
          PRINT 141
          PRINT 142          00008610
          PRINT 143
          124 FORMAT(1H1,105X,3A10)
          125 FORMAT(35X,28HANALYSIS OF COVARIANCE TABLE/)
          126 FORMAT(1H 93(1H*))
          127 FORMAT(2H *,11X,1H1,7X,1H1,3(15X,1H1),7X,1H1,15X,1H*)
          128 FORMAT(2H *,11X,1H1,7X,1H1,15X,33H1 SUM-SQUARES I          00008660
          *I, 7X,1H1,15X,1H*)          00008670
          129 FORMAT(94H * SOURCE I OF I YY I (DUE) I          00008680
          * (ABOUT) I OF I MEAN-SQUARE *)          00008690
          130 FORMAT(2H *,91(1H-),1H*)          00008700
          131 FORMAT(14H * TREATMENT I,7X,1H1,3(15X,1H1),7X,1H1,15X,1H*)          00008710
          132 FORMAT(15H * (BETWEEN) I .15,1H .2H1,E13.7,1H .2(2H1,13X,1H ).2H
          *I .5X,3H I .13X,2H *)
          133 FORMAT(15H * ERROR I .15,1X,3(2H1,E13.7,1H ).2H1 I5,3H I E13.7
          X,2H *)          00008760
          134 FORMAT(14H * (WITHIN) I,7X,1H1,3(15X,1H1),7X,1H1,15X,1H*)

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136 FORMAT(15H * + ERROR   I ,15,1X,3(2NI E13.7,1H ),2NI 15.3H I E13.7
      X,2H *)
137 FORMAT(14H * (TOTAL) 1.7X,1H1.3(15X,1H1).7X,1H1,15X,1H*)
138 FORMAT(55H *DIFFERENCE FOR TESTING ADJUSTED TREATMENT MEANS....I E
      *13.7,3H I ,15.3H I ,E13.7,2H *)
139 FORMAT(/54H0HULL HYPOTHESIS. NO DIFFERENCE AMONG TREATMENTS AFTER00008820
      */18X,26HADJUSTING WITH COVARIATES.//)
140 FORMAT(18X,2HF(,15,1H,15,2H)*,F8.3//)
142 FORMAT(1H 16X,19HTREATMENT (BETWEEN)/)
      DO 68 I=1,NCOV
      SED(I)=SMATRE*TRXX(I,1)
      IF(SED(I).GT.0.)GO TO 65
      PRINT 144,NAMES(I),D(I)
      GO TO 68
65 SED(I)=SQRT(SED(I))
      T=D(I)/SED(I)
      CALL CONF(N4,T,P)
      PRINT 144,NAMES(I),D(I),SED(I),T,P
68 CONTINUE
      PRINT 124,WHEN
      PRINT 141
      PRINT 145
      PRINT 143
      DO 69 I=1,NCOV
      SEB(I)=SMAERR*ERRXX(I,1)
      IF(SEB(I).GT.0.)GO TO 66
      PRINT 144,NAMES(I),B(I)
      GO TO 69
66 SEB(I)=SQRT(SEB(I))
      T=B(I)/SEB(I)
      CALL CONF(N5,T,P)
      PRINT 144,NAMES(I),B(I),SEB(I),T,P
69 CONTINUE
      PRINT 124,WHEN
      PRINT 141
      PRINT 146
      PRINT 143
      DO 70 I=1,NCOV
      SEC(I)=SMATOT*TOTXX(I,1)
      IF(SEC(I).GT.0.)GO TO 67
      PRINT 144,NAMES(I),C(I)
      GO TO 70
67 SEC(I)=SQRT(SEC(I))
      T=C(I)/SEC(I)
      CALL CONF(N6,T,P)
      PRINT 144,NAMES(I),C(I),SEC(I),T,P
70 CONTINUE
      DO 821 I=1,NVAR
      X(I)=0.0
      DO 821 J=1,NGRPS
      TI=NG(J)
      X(I)=X(I)+SSVAR(J,I)*TI/BIG
      DO 72 J=1,NGRPS
      SEADY(J)=1.
      T=0.0
      TI=NG(J)
      TI=1.0/TI
      DO 71 I=1,NCOV
      T=T+B(I)*(SSVAR(J,I)-X(I))
      ADY(J)=SSVAR(J,NVAR)-T
      DO 73 I=1,NCOV
      DO 73 K=1,NCOV
      TI=TI+(SSVAR(J,I)-X(I))*ERRXX(I,K)*(SSVAR(J,K)-X(K))
      IF(SMAERR*TI.LT.0.) GO TO 72
      SEADY(J)=SQRT(SMAERR*TI)
72 CONTINUE
      DO 76 I=1,NGRPS
      IF(MOD(I,50).NE.1)GO TO 74
      PRINT 124,WHEN
      PRINT 147
      PRINT 148
74 IF(SEADY(I).GE.0.) GO TO 75
      PRINT 149,I,SSVAR(I,NVAR),ADY(I)
      GO TO 76
75 PRINT 149,I,SSVAR(I,NVAR),ADY(I),SEADY(I)
76 CONTINUE
      YAC=X(NVAR)
      YAD=X(NVAR)
      DO 79 I=1,NCOV
      YAC=YAC-C(I)*X(I)
      YAD=YAD-D(I)*X(I)
      PRINT 124,WHEN
      PRINT 150
      PRINT 154,YAD
      PRINT 155,YAC
      PRINT 151
      LL=0
      DO 78 I=1,NGRPS
      LL=LL+1
      A(I)=SSVAR(I,NVAR)
      DO 77 J=1,NCOV
      A(I)=A(I)-B(J)*SSVAR(I,J)
      IF(LL.LE.45)GO TO 78
      LL=1
      PRINT 124,WHEN
      PRINT 150
      PRINT 151
78 PRINT 153,I,A(I)
141 FORMAT(/60H0TABLE OF COEFFICIENTS,STANDARD ERRORS AND COMPUTED T-VALUE0009250
      *VALUES//)
143 FORMAT(1H 10X,56HCOEFFICIENT   STAND. ERROR   T-VALUE   CON
      FIDENCE//)
144 FORMAT(1H ,A6,1X,E16.10,E16.10,1X,F11.5,5X,F9.5)
145 FORMAT(1H 23X,14HERROR (WITHIN)/)
146 FORMAT(1H 18X,23HTREATMENT-ERROR (TOTAL)/)
147 FORMAT(44H TABLE OF ADJUSTED MEANS AND STANDARD ERRORS//)
148 FORMAT(149H TREATMENT   TREATMENT   ADJUSTED   SE ADJUSTED/6H   H
      *0.7X,4HMEAN9X,4HMEAN//)
149 FORMAT(1H ,15,3X,E13.7,1X,E13.7,1X,E13.7)
150 FORMAT(20H TABLE OF INTERCEPTS//)
151 FORMAT(23H TREATMENT   INTERCEPT/23H   NO.   (WITHIN)/)
154 FORMAT(26H   INTERCEPT = ,E16.10/23H   (BETW
      EEN)/)
155 FORMAT(26H   INTERCEPT = ,E16.10/22H   (TOT
      AL)/)
153 FORMAT(1H ,15,5X,E16.10)
      RETURN
      END
00009350
00009380

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SUBROUTINE LDAY(MDAY)
DIMENSION MDAY(3), LONG(7), MONTH(12), IBREV(7)
DATA MONTH / 5H MAR, 5H APR, 5H MAY, 5H JUN, 5H JUL, 5H AUG,
1 5H SEP, 5H OCT, 5H NOV, 5H DEC, 5H JAN, 5H FEB /
DATA LONG / 10H SUNDAY, 10H MONDAY, 10H TUESDAY,
1 10H WEDNESDAY, 10H THURSDAY, 10H FRIDAY, 10H SATURDAY /
DATA IBREV / 10H SUN, 10H MON, 10H TUE,
1 10H WED, 10H THU, 10H FRI, 10H SAT /
1 FORMAT(3(1X12))
2 FORMAT(A6,I2.4H, 19,I2)
3 FORMAT(I4)
I = 3
GO TO 4
ENTRY SDAY
I = 1
4 CALL DATE(DAY)
DECODE(10.1, DAY) IY, IM, ID
IA = IM
IF( ID.LE.31 ) GO TO 5
IM = IY
IY = ID
ID = IA
5 IM = IM + 10
IF( IM.GT.12 ) IM = IM - 12
ENCODE(20.2, MDAY(2)) MONTH(IM), ID, IY
DECODE(10.3, MDAY(3)) NYEAR
IF( IM.GE.11 ) NYEAR = NYEAR - 1
NC = NYEAR/100
ND = NYEAR - 100*NC
IC = 2.59 * FLOAT( IM )
IC = IC + ND/4
IC = MOD(IC + ID - NC - NC + ND + NC/4.7)
IF( IC.LT.0 ) IC = IC + 7
IF( I - 1 ) 7, 7, 6
6 MDAY(1) = LONG( IC+1 )
RETURN
7 MDAY(1) = IBREV ( IC+1 )
RETURN
END

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```

SUBROUTINE CONF(N,T,P)
P=.5
IF(N.LT.1) GO TO 6
RPI=.3183098862
TP=ABS(T)/SQRT(FLOAT(N))
I=N-2*(N/2)
IF(I.EQ.1) GO TO 3
P=P*(.5*TP/SQRT(1.+(TP*TP)))
IF(N.EQ.2) GO TO 6
DO 2 I=4,N,2
AK=1.
DO 1 J=4,I,2
AK=AK*(FLOAT(J-3))/(FLOAT(J-2))
1 CONTINUE
P=P*(.5*TP/SQRT(1.+(TP*TP)))*(AK*((1.+(TP*TP))**((2-I)/2)))
2 CONTINUE
GO TO 6
3 P=P*RPI*ATAN(TP)
IF(N.EQ.1) GO TO 6
P=P*(RPI*TP/(1.+(TP*TP)))
IF(N.EQ.3) GO TO 6
DO 5 I=5,N,2
AK=1.
DO 4 J=5,I,2
AK=AK*(FLOAT(J-3))/(FLOAT(J-2))
4 CONTINUE
P=P*(RPI*TP/(1.+(TP*TP)))*(AK*((1.+(TP*TP))**((3-I)/2)))
5 CONTINUE
6 P=100.*P
RETURN
END

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A P P E N D I X    C

ANALYSIS OF COVARIANCE COMPUTER PROGRAM USER'S GUIDE



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ANALYSIS OF COVARIANCE WITH MULTIPLE COVARIATES AND  
FORECAST CAPABILITY

DESCRIPTION

1. This program is designed to compute Analysis-of-Covariance information for one Analysis-of-Variance Variable with multiple Covariates and unequal treatment groups sizes. Cases may be specified by the user as being in certain treatment groups, or cases may be placed in treatment groups by the program in accordance with a specified boolean expression. The program provides the capability to input forecast case data to test the accuracy of the defined covariance statistical model.

2. Output from this program includes:

- a. List of case numbers, data input, and group designation (optional).
- b. Variable means for each treatment group.
- c. Total mean for each variable.
- d. Correlation matrices for total, treatment, and error (optional).
- e. Sums of products matrices for total, treatment, and error.
- f. The inverses of the Covariate matrices for total, treatment, and error.
- g. Analysis-of-Covariance table with degrees of freedom, sums of squares, mean squares, and F-ratio.
- h. Tables of regression coefficients, their standard errors, and computed t-values with and without adjustment for groups.
- i. Table of adjusted means and their standard errors.
- j. Table of Intercepts for Total, Treatment, and Error.
- k. Table of residuals for Total and Error.
- l. Table of Sum-Squares within.
- m. Table of Transgenerated Data Input with Case Numbers, and Group Designation (Optional).

3. Limitations per problem:

- a.  $v$  - Number of variables read in. However, no more than 36 variables (including the Analysis-of-Variance variable) may enter the computation, i.e.,  $v + q \leq 36$ . Also see limitations (b) and (f) below.  
( $3 \leq v \leq 99$ .)
- b.  $p$  - Number of Covariates ( $1 \leq p \leq 35$ ).
- c.  $t$  - Number of treatment groups ( $2 \leq t \leq 99$ ).

- d.  $n_i$  - Sample size of the  $i^{\text{th}}$  treatment group ( $1 \leq n_i \leq 999$ ).
- e.  $N$  - Total number of cases ( $t + p + 1 \leq N \leq 99999$ )
- f.  $q$  - Number of variables added to the original set after transgeneration ( $-96 \leq q \leq 32$ ).
- g.  $m$  - Number of Transgeneration Cards ( $0 \leq m \leq 99$ ).
- h.  $g$  - Number of Group Definition Cards ( $0 \leq g \leq 99$ ).
- i.  $k$  - Number of Variable Format Cards ( $1 \leq k \leq 10$ ).

The above limitations are built into the program and are checked for each problem. If violations occur, a message to that effect is printed, and the entire job is skipped by the system.

4. One set of data input may be processed an indefinite number of times. The user may select various combinations of variables by specifying different variable formats. For each variable selection of the data input, different transgeneration options may be used since data does not remain transformed from one variable selection to the next.

5. This program allows for the placement of cases into particular treatment groups in accordance with a boolean expression on the Group Definition Card. If the case under consideration satisfies the boolean expression given on the Group Definition Card, it is assigned to the treatment group specified on the cards. If the case does not satisfy the boolean expression, the case is skipped.

The boolean expression contains the following:

Relationships	{	GT (Greater Than)
		GE (Greater than or equal to)
		LT (Less Than)
		LE (Less than or equal to)
		EQ (Equal To)
		NE (Not Equal To)
Operations	{	A (And)
		$\phi$ (Or)

For example, 6 21GT3.000A05EQ1.000 $\phi$ 07LE68.50, states that a case is in treatment group 6 if variable 21 is greater than 3.000 and variable 05 equals 1.000 or variable 07 is less than or equal to 68.50.

The boolean expression should be prepared carefully so that there is no possibility of a case satisfying the expression for more than one group.

6. Information from this program includes that usually computed from standard multiple regression analysis. By an arbitrary partitioning of the data input into at least two treatment groups and ignoring the "WITHIN" output, the program may be used to perform multiple regression analysis.

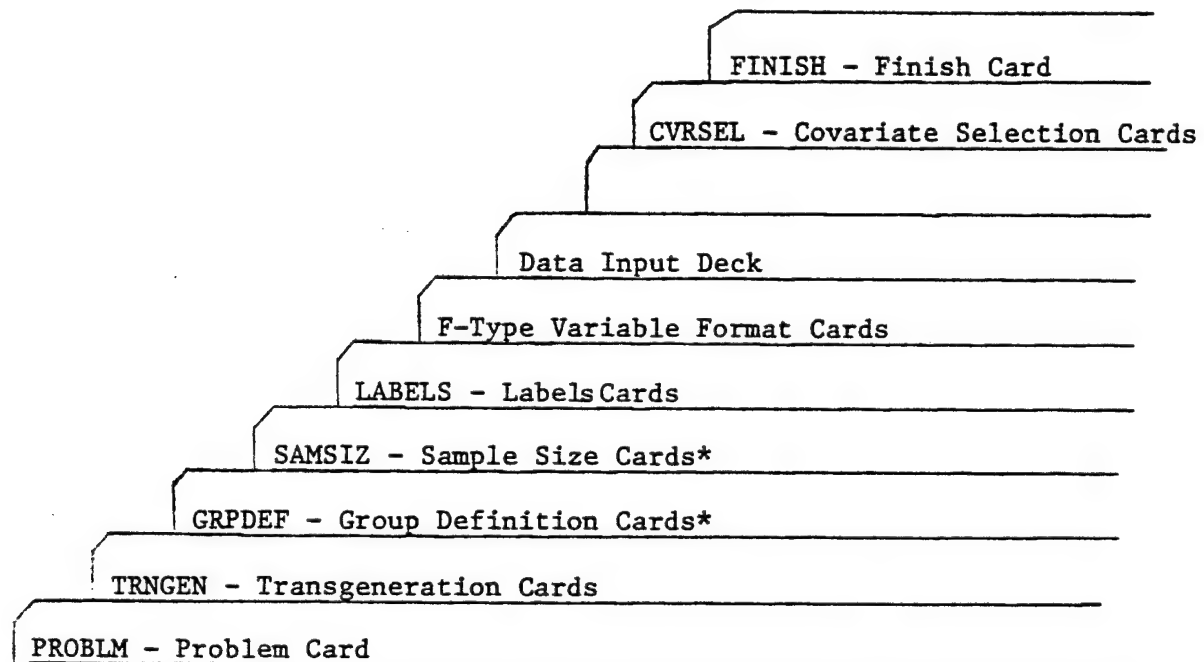
#### ORDER OF CARDS IN JOB DECK

Cards indicated by numbers enclosed in parentheses are optional. All other cards must be included in the order shown.

1. System Cards
2. Problem Card
- (3.) Standard Transgeneration Cards
- (4.) Group Definition Cards\*
- (5.) Sample Size Cards\*
- (6.) Labels Cards
7. F-Type Variable Format Cards
8. Data Input Cards (place data input deck here, if data input is from cards).
9. Covariate Selection Cards  
     . . . Repeat 2. through 9. as desired.
10. Finish Card

\*NOTE: Either (4) or (5) must be used but not both.

DECK SET-UP

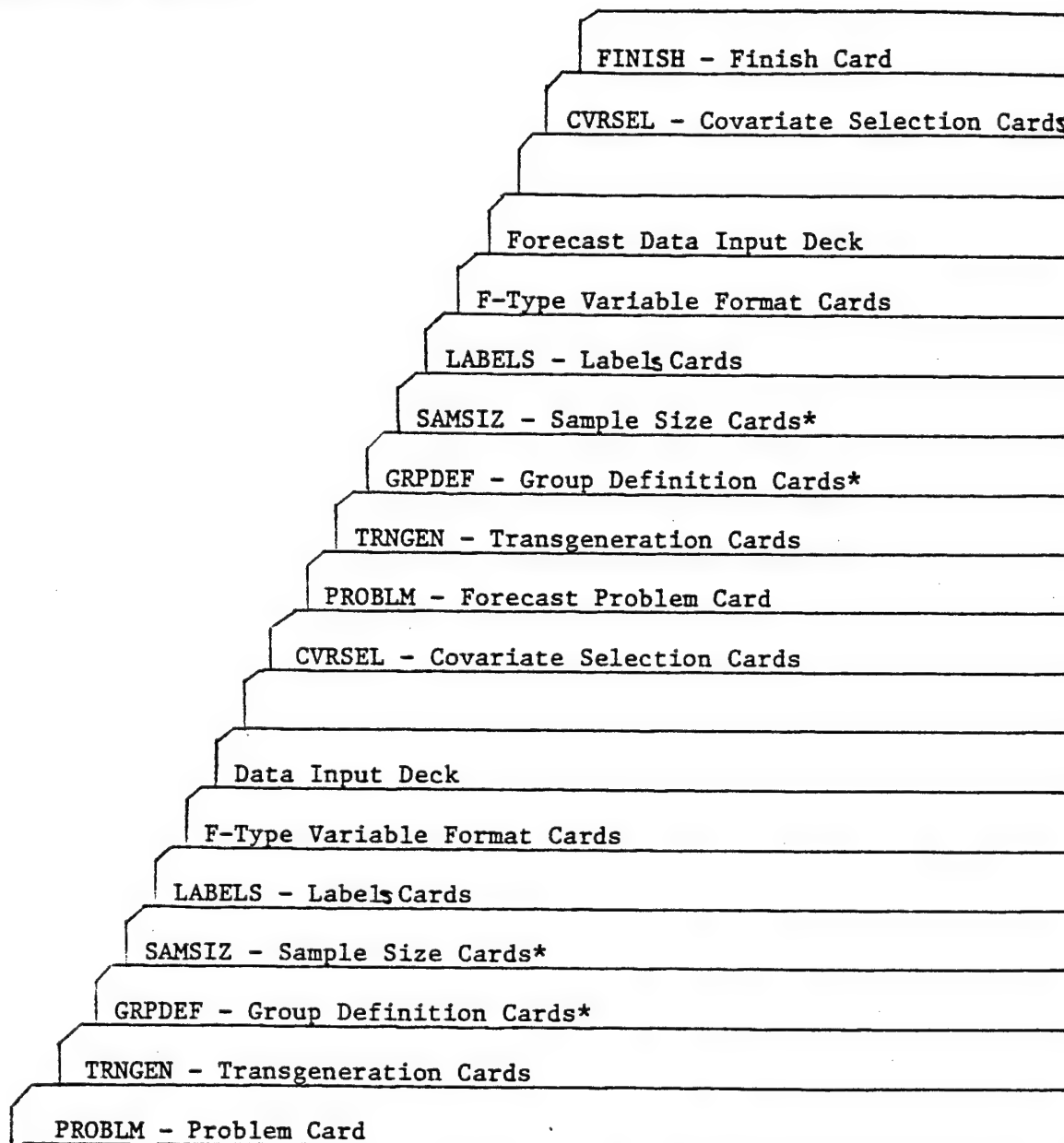


FORECAST DATA JOB DECK

The forecast case data is input in a second problem deck back-to-back with the problem deck that defines the statistical model as described above. The Forecast problem Deck is inserted after the Covariate Selection Cards of the previously defined problem deck. The complete job deck is described as follows:

1. Cards (1) through (9), as shown in the above order of cards in the job deck.
2. Problem Card. (Same as card (2) except for the following; Input the number of forecast cases in Column 15-19, input the characters "Yes" in Columns 61-63.)
3. Repeat cards (3) through (7).
4. Forecast Data Input Cards (Place data input deck here, if data input is from cards.)
5. Repeat card (9).
6. Finish card.

FORECAST DECK SET-UP:





PREPARATION OF PROGRAM CONTROL CARDSPROBLEM CARD (One problem card for each problem.)

Columns 1-6	PROBLM	(Mandatory)
Columns 7-12	Alphanumeric identification. This must be the same as the preceeding problem if and only if the same (untransgenerated) data input from that problem is to be the data input for this problem. (This feature avoids reproducing the same data input for more than one consecutive problem.)	
Columns 13-14	Number of treatment groups ( $2 \leq t \leq 99$ )	
Columns 15-19	Total number of cases for all treatment groups ( $t + p + 1 \leq N \leq 99,999$ )	
Columns 20, 21	Number of cards per case	
Columns 22, 23	Number of variables read in ( $2 \leq V \leq 99$ )	
Columns 24-26	000 - No variables added to the original set after transgeneration.  q, q - Variables added to the original set after transgeneration. ( $-97 \leq q \leq 34$ )	

NOTE: Covariates and the variate (dependent variable) may be generated from the original variables as desired by the transgeneration process. The limit of 99 variables cannot be exceeded at any point during transgeneration. No more than 36 variables may enter the computation.

Columns 27, 28	Index of the variate or dependent variable.
Columns 29-31	YES - If the data input is to be printed; otherwise, leave blank.
Columns 32-34	Number of labels specified on Label Cards; if the labels are not specified, leave blank.
Columns 35-37	YES - If the data cards from the <u>previous</u> problem are to be used. (A different set of variable format cards may be used. If new data cards are to be used, leave these columns blank.)
Columns 38, 39	Number of Group Definition Cards ( $0 \leq g \leq 99$ )

NOTE: The number of groups defined by these cards must be the t groups specified in columns 13, 14.

Columns 40-42	YES - If residuals (within) are to be printed; otherwise, leave blank.
Columns 43-45	YES - If residuals (total) are to be printed; otherwise, leave blank.
Columns 46-48	YES - If the transgenerated variables entering the computation are to be printed; otherwise, leave blank.
Columns 49-57	Blank
Columns 58-60	YES - If the correlation matrices are to be printed; otherwise, leave blank.
Columns 61-63	YES - If the forecast data input is included; otherwise, leave blank.
Columns 65, 66	NO - If input tape is not to be rewound before reading.
Columns 67, 68	00 - No transgeneration. m - m transgeneration cards ( $0 \leq m \leq 99$ )
Columns 69, 70	00 - If data input if from cards. T - If data input is on logical BCD tape T, ( $T \neq 1, 2, 3, 5, 6, 7$ )
Columns 71, 72	Number of variable format cards ( $1 \leq k \leq 10$ )

TRANSGENERATION CARDS

The term transgeneration is used to include transformations of input variables and creation of new variables prior to the computations performed by the statistical program.

The transformations described below are performed on the values of the variables in each case. In these examples, the symbol  $X_i$  will denote the  $i^{\text{th}}$  variable as well as its value.

## EXAMPLES:

$$\text{Log}_{10} X_4 \rightarrow X_4$$

$\text{Log}_{10} X_4$  replaces  $X_4$

$$X_5^c \rightarrow X_1$$

$X_5^c$  replaces  $X_1$

$$X_2 + X_3 \rightarrow X_2$$

$X_2 + X_3$  replaces  $X_2$

By successive transformations, more complicated relationships may be obtained. For example:

(i) To replace  $X_5$  by  $\sqrt{X_1^2 + X_3^2}$  four transformations are required:

Variables as they are stored at each step					
Transformation	$X_1$	$X_2$	$X_3$	$X_4$	$X_5$
$X_1^2 \rightarrow X_1$	$X_1^2$	$X_2$	$X_3$	$X_4$	$X_5$
$X_3^2 \rightarrow X_3$	$X_1^2$	$X_2$	$X_3^2$	$X_4$	$X_5$
$X_1 + X_3 \rightarrow X_5$	$X_1^2$	$X_2$	$X_3^2$	$X_4$	$X_1^2 + X_3^2$
$X_5 \rightarrow \sqrt{X_5}$	$X_1^2$	$X_2$	$X_3^2$	$X_4$	$\sqrt{X_1^2 + X_3^2}$

In this example, it can be seen that the original values of  $X_5$  are irrelevant. Actually the variable  $X_5$  may be a dummy variable introduced by the program specifically to provide capacity for creating new variables by transgeneration. Dummy variables may be required for intermediate storage in order to effect some transformations.

(ii) To replace  $X_1$  by  $\text{Exp}(-1/2 X_1^2)$  three transformations are required:

<u>TRANSFORMATION</u>	$X_1$
$X_1^2 \rightarrow X_1$	$X_1^2$
$-1/2 X_1 \rightarrow X_1$	$-1/2 X_1^2$
$\text{Exp}(X_1) \rightarrow X_1$	$\text{Exp}(-1/2 X_1^2)$

(iii) To replace  $X_4$  by  $X_2 + \text{Log}_{10}(X_4 - X_3 + 100)$  four transformations are required:

<u>TRANSFORMATION</u>	$X_1$	$X_2$	$X_3$	$X_4$
$X_4 - X_3 \rightarrow X_4$	$X_1$	$X_2$	$X_3$	$X_4 - X_3$
$X_4 + 100 \rightarrow X_4$	$X_1$	$X_2$	$X_3$	$(X_4 - X_3 + 100)$
$\text{Log}_{10} X_4 \rightarrow X_4$	$X_1$	$X_2$	$X_3$	$\text{Log}_{10}(X_4 - X_3 + 100)$
$X_2 + X_4 \rightarrow X_4$	$X_1$	$X_2$	$X_3$	$X_2 + \text{Log}_{10}(X_4 - X_3 + 100)$

The transformations are performed in the order in which the transgeneration cards appear, so that, for example, the two transgenerations  $2X_1 \rightarrow X_1$  followed by  $X_1 - 2 \rightarrow X_1$ , will result in  $2X_1 - 2$ , where as  $X_1 - 2 \rightarrow X_1$  followed by  $2X_1 \rightarrow X_1$  will result in  $2(X_1 - 2)$ .

#### TRANSGENERATION LIST

Notation to be used in the following transgeneration list:

i, j, k are variable indices (need not be different)

c is a constant

n is a number of cases or sample size

<u>Code</u>	<u>Transgeneration</u>	<u>Restriction</u>
01	$\sqrt{X_i} \rightarrow X_k$	$X_i \geq 0$
02	$\sqrt{X_i} + \sqrt{X_i + 1} \rightarrow X_k$	$X_i \geq 0$

<u>Code</u>	<u>Transgeneration</u>	<u>Restriction</u>
03	$\text{Log}_{10} X_i \rightarrow X_k$	$X_i > 0$
04	$e^{X_i} \rightarrow X_k$	
05	$\text{ARCSIN} \sqrt{X_i} \rightarrow X_k$	$0 \leq X_i \leq 1$
06	$\text{ARCSIN} \sqrt{X_i / (n + 1)} + \text{ARCSIN} \sqrt{(X_i + 1) / (n + 1)} \rightarrow X_k$	$0 \leq (X_i / n) \leq 1$
07	$1/X_i \rightarrow X_k$	$X_i \neq 0$
08	$X_i + C \rightarrow X_k$	
09	$X_i C \rightarrow X_k$	
10	$X_i^C \rightarrow X_k$	$X_i \geq 0$
11	$X_i + X_j \rightarrow X_k$	
12	$X_i - X_j \rightarrow X_k$	
13	$X_i X_j \rightarrow X_k$	
14	$X_i / X_j \rightarrow X_k$	$X_j \neq 0$
15	If $X_i \geq c$ , $1 \rightarrow X_k$ ; otherwise $0 \rightarrow X_k$	
16	If $X_i \geq X_j$ , $1 \rightarrow X_k$ ; otherwise $0 \rightarrow X_k$	
17	$\text{Log}_e X_i \rightarrow X_k$	$X_i > 0$
20	$\text{Sin } X_i \rightarrow X_k$	
21	$\text{Cos } X_i \rightarrow X_k$	
22	$\text{Arctan } X_i \rightarrow X_k$	
23	$X_i^{X_j} \rightarrow X_k$	$X_i > 0$
24	$C^{X_i} \rightarrow X_k$	$C > 0$

<u>Code</u>	<u>Transgeneration</u>	<u>Restriction</u>
41	If $X_i$ is blank, then $C \rightarrow X_k$ ; otherwise $X_k$ remains unchanged.	$X_i \neq -0^*$

\*NOTE: In reading numeric fields, a blank field may be read as -0.

When a violation of a restriction in the right-hand column occurs during transgeneration, the program will print a diagnostic message and continue the computation with the data unchanged where the violation occurred.

#### CARD PREPARATION

Column 1-6	TRNGEN	(Mandatory)
Column 7-9	Variable index k	
Columns 10, 11	Code from transgeneration list	
Column 12-14	Variable index i	
Column 15-20	Variable index j or constant C	

The Constant C is punched with a decimal point if used with variables which have an F-Type format and without a decimal point if used with variables which have an I-Type format.

The transgeneration cards for the three examples cited above are:

- (i) TRNGEN001100012.0000  
TRNGEN003100032.0000  
TRNGEN00511001000003  
TRNGEN00501005000000
- (ii) TRNGEN001100012.0000  
TRNGEN00109001-0.500  
TRNGEN00104001000000
- (iii) TRNGEN00412004000003  
TRNGEN00408004100.00  
TRNGEN00403004000000  
TRNGEN00411004000002

#### GROUP DEFINITION CARDS

If the boolean selection feature is being used to place cases in their treatment groups, Group Definition Cards are prepared to select the cases for the t groups specified in columns 13, 14 of the Problem Card.

Column 1-6	GRPDEF	(Mandatory)
Columns 7, 8	Treatment group number to which case should be assigned if it satisfies the boolean expression.	

Columns 9, 10	Variable index for the first relationship
Columns 11, 12	Relationship
	GT (Greater Than)
	LT (Less Than)
	LE (Less Than or Equal To)
	GE (Greater Than or Equal To)
	EQ (Equal To)
	NE (Not Equal To)
Column 13-17	Constant used in the relationship (punch the decimal point).
Column 18	Operation
	A (AND)
	Ø (OR)
	* (This terminates the boolean expression)
Columns 19, 20	Variable index for the second relationship
Columns 21, 22	Relationship
...	
Column 68	Operation

NOTE: If additional boolean expressions are required for a particular treatment group, continue on a second card and terminate the expression with the asterisk (\*) in the appropriate column. As many cards as needed may be used as long as the total does not exceed the limitation of 99. Since parentheses cannot be used for compound AND/OR expressions, AND is assumed to precede OR. The statement W OR X AND Y OR Z will operate as W OR (X AND Y) OR Z.

#### SAMPLE SIZE CARDS

Sample Size Cards are prepared if cases are specified by the user as being in certain treatment groups. These cards are not prepared if the boolean selection feature is used.

Column 1-6	SAMSIZ	(Mandatory)
Column 7-9	Number of cases in 1st treatment group	
Column 10-12	Number of cases in 2nd treatment group	
...		
Column 70-72	Number of cases in 22nd treatment group. If there are more than 22 treatment groups, continue keypunching a second card, a third card, etc., in the same manner, i.e.,	
Column 1-6	SAMSIZ	(Mandatory)
Column 7-9	Number of cases in the 23rd treatment group	
...		

LABELS CARDS

Labels cards allow the user to substitute alphanumeric names for the usual numeric indices (variable numbers) which appear on the printed output.

CARD PREPARATION

Columns 1-6	LABELS	(Mandatory)
Columns 7-10	The number of the variable (or index) to be named. This number must be right-justified.	
Columns 11-16	The corresponding alphanumeric name.	
Columns 17-20	The number of another variable.	
Columns 21-26	The corresponding alphanumeric name.	
.		
.		
.		
Columns 67-70	The number of another variable.	
Columns 71-76	The corresponding alphanumeric name. (Up to 7 per card.)	

There may be from one to seven pairs of variable numbers and labels on each Labels Card. If desired, only one pair may be specified on each card. However, the total number of labels appearing on all the Labels Cards must equal the number of labels specified on the problem card.

It is not necessary to label all the variables. Those labeled may be listed in any order. EXAMPLE: Suppose the number of variables to be labeled as specified on the Problem Card is 8. Then the Labels Cards might be punched as:

```
LABELS  10 HEIGHT 07WEIGHT  06  AGE  11TYPE  17GROUP  03STATUS
LABELS  01GAIN  08SYSTEM
```

VARIABLE FORMAT CARDS (FOR INPUT)

The word "FORMAT" usually refers to the arrangement of information keypunched on a card. The format of a data card is a sequence of fields (variables), each of which occupies one or more columns. For the computer program a format is a set of specifications according to which information is read into the program from punched cards. The specifications tell the program which parts (or columns) of the card to skip, which parts to regard as all one number, and which parts to regard as several numbers in a row. For instance, it is the format which tells the program whether a card punched "345890021" is to be read in as "34.5, 890.0, .021", or "34., 9002.1", or "598.002", or "3, 4, 58, 90, 0, 2, 1", etc. It does this by giving the program a sequence of specifications which indicate the size of a field and



the method of handling that field (i.e., skipping it, entering it into the computer as a whole number, entering it into the computer as a number with two decimal digits, etc.).

The format also tells that program how to read in a certain set of cards when more than one are required to contain all the data for one case. The format describes the variables for each case. Each successive case is assumed to have the same format.

If the format for the program is fixed in advance, all data would have to be punched on cards in the same way for every study. Since this is not usually convenient, the program has been written so that the user may vary the format according to his preference for a particular study. For this reason, they are referred to as "Variable Formats". The program is informed of the format which is to be used by Variable Format Cards. The user must specify on the Problem Card the number of cards used to keypunch the variable format.

In addition to providing an economical method of preparing data input cards (by defining fields to be as small as possible, or "packing" the data), the variable format permits considerable freedom in controlling data input.

For instance:

- It allows the user to select for each case only those cards which have fields of interest. (See examples i, iii, iv below.)
- It allows the user to select only those fields of interest from among the fields of each card. (See examples ii, iii, iv.)
- It allows the user to scale the data input, i.e., shift the decimal point.

#### F-TYPE VARIABLE FORMAT

The F-Type format is the most frequently used in the program. It is required when the decimal point is keypunched on the card or when the decimal point is to be placed by the program. All data input values must be signed (+) or unsigned numbers with or without a decimal point punched.

#### SPECIFICATIONS:

1. "nFw.d" - F is the floating point (decimal) indicator; n is the number of fields of width W (includes sign and decimal point if punched); and d is the number of digits to the right of the decimal point if the decimal point is not punched ( $0 \leq d \leq w$ ). If the decimal is punched, d is ignored. If n is not specified, it is assumed to be 1.
2. "sPnFw.d" - P is the scale indicator; s is a scale factor (explained below); and n, w, and d are defined in specification 1.
3. "mX" (Alphabetic X) - X is the skip indicator, and m is the number of columns to be skipped.

4. "/" - (slash) indicates "go to the next data card." Depending on its location in the format statement, the "/" will either direct the program to go immediately to the next card (ignoring any further information on the current card) or skip one card altogether. For example, if a format begins with "/", the program will automatically skip the first card, read the second, skip the third, etc. (See examples i, iii, iv.) "/" indicates "go to the card after next." Two slashes "/" will direct the program to skip two cards. Any number of slashes may be used.

The format is keypunched beginning with a left parenthesis, followed by a sequence of specifications and closed by a right parenthesis. Specifications 1, 2, and 3 are followed by a comma, except preceding a slash or right-hand parenthesis. Blank columns within the format are ignored.

#### EXAMPLES:

(i) (12F3.0, F4.0, 11F2.0/) punched in the first 21 columns of the variable format card, will describe 12 three-column fields followed by 1 four-column field, followed by 11 two-column fields, followed by an instruction to skip the second card, read the third, skip the fourth, etc.

(ii) (10x, F6.0, 2x, 2F3.0) punched in the first 19 columns, will instruct the program to direct entry of data from each card as follows:

1. Skip 10 columns.
2. Pick up a six-digit field in Column 11-16.
3. Skip 2 columns.
4. Pick up 2 three-digit fields in Columns 19-21 and 22-24.

(iii) (5X, 2F6.0, F1.0, 3X, F5.0/5X, F6.0) punched in the first 31 columns, will instruct the program to direct entry of data from each pair of cards as follows:

1. Skip 5 columns.
2. Pick up 2 six-digit fields in Columns 6-11 and 12-17.
3. Pick up a one-digit field in Column 18.
4. Skip three columns (Columns 19-21).
5. Pick up a five-digit field in Columns 22-26.
6. Go to second data card.
7. Skip 5 columns.
8. Pick up a six-digit field in Columns 6-11 of second card.
9. Repeat for each pair of data cards.

(iv) (5X, 2F6.0, F1.0, 3X, F5.0//5X, F6.0/F4.0, 2X, F1.0) punched in the first 45 columns, will instruct the program to direct entry of data from each set of four cards as follows:

- 1-5. Same as example (iii).
6. Skip second card and go to third card.
7. Skip 5 columns.
8. Pick up a six-digit field in Columns 6-11 of third card.
9. Go to fourth card.
10. Pick up a four-digit field in Column 1-4 of fourth card.
11. Skp two columns.
12. Pick up a one-digit field in Column 7.
13. Repeat for each set of four cards.

#### SCALING

Scaling may be indicated by using either the "nFw.d" specification or the "sPnFw.d" specification.

#### "nFw.d" SPECIFICATION

When the decimal point is not punched, the d of the above specification instructs the program to divide the whole picked up by  $10^d$ . For example, F6.1 will specify that the number picked up in a six-column field be divided by 10, F6.2 will specify division by 100, and F6.6 will specify division by 1,000,000.

Stored number = punched number /  $10^d$ .

#### EXAMPLES:

<u>Punched Number</u>	<u>Format Specification</u>	<u>Stored Number</u>
2468	F4.0	2468.0
3691	F4.1	369.1
4810	F4.3	4.810
4911.32	F7.0	4911.32
172115	F6.6	0.172115

#### "sPnFw.d" SPECIFICATION

Whether the decimal point is punched or not, the s of the above specification instructs the program to divide the number picked up by

$10^S$ . For example, 2PF6.0 will specify division by 100, -2PF6.0 will specify division by .01. If the decimal point is punched:

$$\text{Stored number} = \text{Punched number} / 10^S$$

If the decimal is not punched:

$$\text{Stored number} = \text{Punched number} / 10^{S+d}$$

#### EXAMPLES:

<u>Punched Number</u>	<u>Format Specification</u>	<u>Stored Number</u>
7432	1PF4.0	743.2
74.32	-5PF5.0	7432000.0
7432	2PF4.3	0.07432
7432	1P2F2.0	7.4 & 3.2
7432	2P2F2.1	0.074 & 0.032
7432	OPF4.1	743.2
7.432	-3PF5.0	7432.0

#### MIXED "nFw.d" AND "sPnFw.d" SPECIFICATIONS:

Once the sPnFw.d specification has been used, it will hold for all Fw.d specifications to the right of it until another sPnFw.d is encountered. If the sPnFw.d specification is not necessary to the right of its occurrence within the variable format statement, then OPFw.d should be used for the next specification to the right, which will hold then for the remaining specifications.

#### EXAMPLES:

(v) (2F3.1, 2x, F4.2, -6PF3.0, F4.0) - The program interprets the last field as -6PF4.0.

(vi) (2F3.1, 2X, F4.2, -6PF3.0, OPF3.0) - The program interprets the last field as F3.0.

(vii) (1PF3.0, F2.0, OPF3.1, F4.2, F4.0) - The program interprets the second field as 1PF2.0.

#### DATA INPUT CARDS

The form of the data input when Sample Size Cards are prepared is illustrated in the following example:

		<u>VARIABLES</u>				
		<u>CASES</u>	<u>1</u>	<u>2</u>	<u>. . .</u>	<u>v</u>
Treatment Group 1	1		$X_{1,1,1}$	$X_{1,1,2}$	$. . .$	$X_{1,1,v}$
	2		$X_{1,2,1}$	$X_{1,2,2}$	$. . .$	$X_{1,2,v}$
	$. . .$		$. . .$	$. . .$	$. . .$	$. . .$
	$n_1$		$X_{1, n_1, 1}$	$X_{1,n_1,2}$	$. . .$	$X_{1,n_1,v}$

		<u>VARIABLES</u>				
		<u>CASES</u>	<u>1</u>	<u>2</u>	<u>. . .</u>	<u>v</u>
Treatment Group 2	1		$X_{2,1,1}$	$X_{2,1,2}$	. . .	$X_{2,1,v}$
	2		$X_{2,2,1}$	$X_{2,2,2}$	. . .	$X_{2,2,v}$
	. . .		. . .	. . .	. . .	. . .
	$n_2$		$X_{2,n_2,1}$	$X_{2,n_2,2}$	. . .	$X_{2,n_2,v}$

. . .

		<u>VARIABLES</u>				
		<u>CASES</u>	<u>1</u>	<u>2</u>	<u>. . .</u>	<u>v</u>
Treatment Group t	1		$X_{t,1,1}$	$X_{t,1,2}$	. . .	$X_{t,1,v}$
	2		$X_{t,2,1}$	$X_{t,2,2}$	. . .	$X_{t,2,v}$
	. . .		. . .	. . .	. . .	. . .
	$n_t$		$X_{t,n_t,1}$	$X_{t,n_t,2}$	. . .	$X_{t,n_t,v}$

The preparation of data input on cards is as follows:

1. The cards must be arranged in consecutive treatment groups.
2. Within each treatment group the cards must be arranged in consecutive cases.
3. For each case the variables must be keypunched in fields from left to right across the card (and on to successive cards, if necessary).
4. Each case must begin on a new card.

If the data input is from a prepared BCD tape, the arrangement of data must be in the same form as indicated above. Each case must be a logical record with the last record consisting of the last case of the  $t^{\text{th}}$  treatment group.

When Group Definition Cards are used, the data is prepared in a similar manner as above considering the data as a single treatment group.

#### COVARIATE SELECTION CARDS

The indices to be used in specifying the covariates are the indices corresponding to the variables after transgeneration.

Columns 1-6	CVRSEL (Mandatory)
Columns 7, 8	Number of Covariates for this problem ( $1 \leq p \leq 35$ )
Columns 9, 10	Index of the 1st Covariate
Columns 11, 12	Index of the 2nd Covariate
. . .	
Columns 71, 72	Index of the 32nd Covariate

If there are more than 32 Covariates, they are specified on a second Covariate Selection Card as follows:

Columns 1-6	CVRSEL (Mandatory)
Columns 7, 8	Index of the 33rd Covariate
Columns 9, 10	Index of the 34th Covariate
Columns 11, 12	Index of the 35th Covariate

#### TAPE INPUT

The program has provision for input of data prepared on tape or disk by means of an alternate input tape. Use of tapes or disks for data provide a very compact storage of data files. One data file may be reread several times to allow several analyses from the same data file by rewinding the alternate input tape.

When the data input consists of p variables on n cases written in consecutive Logical records on magnetic tape in Binary Coded Decimal (BCD) form, a special data input tape may be used. The logical record will usually be the equivalent of one card. When a binary tape is used for data input, it is assumed to be in the standard FORTRAN binary tape format. The user will specify which tape drive is to receive the special data tape.

The program uses several tapes for intermediate storage. Tape numbers 2, 3, 7, 8, and 9, in addition to 5 and 6, may not be specified as alternate input or output tapes for the program.

A P P E N D I X    D  
COMPUTATIONAL PROCEDURE



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LIST OF SYMBOLS

$a, b, k, m$	covariate designators
$A_k$	Total regression coefficient of $k^{\text{th}}$ covariate
$B_k, \beta_k$	Error (Within) regression coefficient of $k^{\text{th}}$ covariate
$e_{ij}$	residual variate error for the $j^{\text{th}}$ sample of $i^{\text{th}}$ treatment group
$E_{\text{about}}$	Error (Within) sum of squared deviation about regression equation
$E_{\text{due}}$	Error (Within) sum of squared deviation due to regression equation
$E_{km}$	inverse of $E_{XX_{km}}$ matrix
$E_{XX_{ab}}$	Error (Within) sum of squared deviation for $a^{\text{th}}$ and $b^{\text{th}}$ covariates
$E_{XY_k}$	Error (Within) sum of squared deviation for variate and $k^{\text{th}}$ covariate
$E_{YY}$	Error (Within) sum of squared deviation for variates
$i$	Treatment group designator
$j$	treatment group sample size designator
$n_i$	sample size of the $i^{\text{th}}$ treatment group
$N$	total number of cases
$S_{\text{about}}$	Total sum of squared deviation about regression equation
$S_{\text{due}}$	Total sum of squared deviation due to regression equation
$S_{km}$	inverse of $S_{XX_{km}}$ matrix
$S_{XX_{ab}}$	Total sum of squared deviation for $a^{\text{th}}$ and $b^{\text{th}}$ covariates
$S_{XY_k}$	Total sum of squared deviation for variate and $k^{\text{th}}$ covariate

$S_{YY}$	Total sum of squared deviation for variate
$SE(A_k)$	standard error of $k^{th}$ total regression coefficient
$SE(ADJ Y_{i.})$	standard error of adjusted variate mean for the $i^{th}$ treatment group
$SE(B_k)$	standard error of $k^{th}$ error (within) regression coefficient
$t_k$	computed T-value of $k^{th}$ regression coefficient
$T_{XY_{ab}}$	Treatment (Between) sum of squared deviation for $a^{th}$ and $b^{th}$ covariates
$T_{XY_k}$	Treatment (Between) sum of squared deviation for variate and $k^{th}$ covariate
$T_{YY}$	Treatment (Between) sum of squared deviation for variates
$X_{ijk}$	$k^{th}$ covariate for the $j^{th}$ sample of $i^{th}$ treatment group
$X_{i.k}$	$k^{th}$ covariate mean for the $i^{th}$ treatment group
$X_{..k}$	$k^{th}$ covariate mean, ingoring treatments
$Y_{ij}$	variate for the $j^{th}$ sample of $i^{th}$ treatment group
$Y_{i.}$	variate mean for the $i^{th}$ treatment group
$\alpha_i$	differential effect on mean for the $i^{th}$ treatment group
$\mu$	overall mean
$\mu + \alpha_i, ADJ(Y_{i.})$	adjusted covariate mean for the $i^{th}$ treatment group

DISCUSSION

This section presents the computational procedure for the Analysis-of-Covariance statistical model together with the intermediate residual calculations. The first step in the formulation of the statistical model equations is the calculation of the variate and covariate group means. Next, the cross product deviation matrices for the Total, Treatment, and Error solutions are formed and inverted to solve for the regression coefficients. The final step in the formulation of the model equations is the solution of the adjusted variate group means. The inclusion in this report of the model equations and associated correlation equations is not meant as a full treatise on the subject. A thorough treatment of the governing statistical equations can be found in any standard text (i.e., references (b) and (c)).

GOVERNING EQUATIONSCOMPUTATIONAL PROCEDURE

Statistical Model:

$$Y_{ij} = \mu + \alpha_i + \beta_1 (X_{ij1} - X_{i.1}) + \dots + \beta_p (X_{ijp} - X_{i.p}) + e_{ij}$$

Notation:

$$X_{ijk} (k^{\text{th}} \text{ Covariate}), Y_{ij} = X_{ij(p+1)} (\text{Variate})$$

$$i = 1, 2, \dots, t \quad (\text{Treatment Groups})$$

$$j = 1, 2, \dots, n_i \quad (\text{Sample size of the } i^{\text{th}} \text{ treatment group})$$

$$k = 1, 2, \dots, p \quad (\text{Covariates})$$

$$m = 1, 2, \dots, p \quad (\text{Covariates})$$

$$a = 1, 2, \dots, p+1 \quad (\text{Covariates} + 1 \text{ variate})$$

$$b = 1, 2, \dots, p+1 \quad (\text{Covariates} + 1 \text{ variate})$$

Step 1

$$1. N = \sum_{i=1}^t n_i \quad (\text{Total number of cases})$$

$$2. Y_{i.} = \frac{1}{n_i} \sum_{j=1}^{n_i} Y_{ij} \quad (\text{Variate mean for the } i^{\text{th}} \text{ group})$$

$$3. X_{i.k} = \frac{1}{n_i} \sum_{j=1}^{n_i} X_{ijk} \quad (\text{Covariate means for the } i^{\text{th}} \text{ group and } k^{\text{th}} \text{ covariate})$$

$$4. X_{..k} = \frac{1}{N} \sum_{i=1}^t \sum_{j=1}^{n_i} X_{ijk} \quad (\text{kth Covariate mean, ignoring treatments})$$

(2) and (3) are printed under the heading variable means for each group.

Step 2. Sums of Squared Deviation

## 1. Total

$$S_{XX_{ab}} = \sum_{i=1}^t \sum_{j=1}^{n_i} X_{ija} X_{ijb} - \frac{\left( \begin{matrix} t & n_i \\ \Sigma & \Sigma^i \\ i=1 & j=1 \end{matrix} X_{ija} \right) \left( \begin{matrix} t & n_i \\ \Sigma & \Sigma^i \\ i=1 & j=1 \end{matrix} X_{ijb} \right)}{N}$$

$$S_{XY_k} = S_{XX_{k(p+1)}}$$

$$S_{YY} = S_{XX_{(p+1)(p+1)}}$$

## 2. Treatment (Between)

$$T_{XX_{ab}} = \sum_{i=1}^t \frac{\left( \begin{matrix} n_i \\ \Sigma \\ j=1 \end{matrix} X_{ija} \right) \left( \begin{matrix} n_i \\ \Sigma \\ j=1 \end{matrix} X_{ijb} \right)}{n_i} - \left( \begin{matrix} t & n_i \\ \Sigma & \Sigma^i \\ i=1 & j=1 \end{matrix} X_{ija} \right)$$

$$* \frac{\left( \begin{matrix} t & n_i \\ \Sigma & \Sigma^i \\ i=1 & j=1 \end{matrix} X_{ijb} \right)}{N}$$

$$T_{XY_k} = T_{XX_{k(p+1)}}$$

$$T_{YY} = T_{XX_{(p+1)(p+1)}}$$

## 3. Error (Within)

$$E_{XX_{ab}} = S_{XX_{ab}} - T_{XX_{ab}}$$

$$E_{XY_{k(p+1)}} = S_{XY_{k(p+1)}} - T_{XY_{k(p+1)}}$$

$$E_{YY} = S_{YY} - T_{YY}$$

(1), (2), and (3) are printed under the heading Sums of Squares and Cross Product Matrix for Total, Treatment, and Error.

### Step 3. Regression Coefficients

1. Matrices  $S_{XX_{km}}$  and  $E_{XX_{km}}$  are inverted.

$$\text{Let } S_{km} = (S_{XX_{km}})^{-1}, E_{km} = (E_{XX_{km}})^{-1}$$

$$2. B_k = \sum_{m=1}^P (E_{km})(E_{XY_m}) \quad (\text{Error Coefficients})$$

$$3. A_k = \sum_{m=1}^P (S_{km})(S_{XY_m}) \quad (\text{Total Coefficients})$$

(1) is printed under the heading, Inverse of the Covariates Cross Product Matrix for Total and Error.

### Step 4. Regression Sums of Squares

- (1) Error (Within)

$$E_{\text{due}} = \sum_{k=1}^P B_k E_{XY_k}$$

$$E_{\text{about}} = E_{YY} - E_{\text{due}}$$

2. Total

$$S_{\text{due}} = \sum_{k=1}^P A_k S_{XY_k}$$

$$S_{\text{about}} = S_{YY} - S_{\text{due}}$$

(1) and (2) are printed in the Analysis of Covariance Table.

### Step 5. Standard Errors of Regression Coefficients and computed t - VALUES

	<u>STANDARD ERRORS</u>	<u>COMPUTED t - VALUES</u>
ERROR:	$SE(B_k) = \sqrt{E_{\text{about}}} \cdot E_{kk}$	$t_k = \frac{B_k}{SE(B_k)}$
TOTAL:	$SE(A_k) = \sqrt{S_{\text{about}}} \cdot S_{kk}$	$t_k = \frac{A_k}{SE(A_k)}$



These and (1) and (3) from Step 3 are printed in the output under the heading TABLE OF COEFFICIENTS, STANDARD ERRORS AND COMPUTED T-VALUES.

Step 6. Adjusted Means and Standard Errors of Adjusted Means

(1) Adjusted Means

$$\text{ADJ } (Y_{i.}) = Y_{i.} - \sum_{m=1}^P B_m (X_{i.m} - X_{..m})$$

(2) Standard Errors of Adjusted Means

$$\text{SE}(\text{ADJ } Y_{i.}) = \left\{ E_{\text{due}} \left[ \frac{1}{n_i} + \sum_{k=1}^P \sum_{m=1}^P (X_{i.k} - X_{..k}) E_{km} (X_{i.m} - X_{..m}) \right] \right\}^{1/2}$$

These are printed in the output under the heading, Table of Adjusted Means and Standard Errors.